SOLICITATION/CONTRACT/ORDER FOR COMMERCIAL ITEMS
OFFEROR TO COMPLETE BLOCKS 12, 17, 23, 24, AND 30

1. REQUISITION NUMBER: W81W3G-3175-3545

2. CONTRACT NO.	3. AWARD/EFFECTIVE DATE	4. ORDER NUMBER	5. SOLICITATION NUMBER	6. SOLICITATION ISSUE DATE
DACW31-03-C-0049	07-Aug-2003		DACW31-03-T-0086	08-Jul-2003

7. FOR SOLICITATION INFORMATION CALL:	a. NAME	b. TELEPHONE NUMBER *(No Collect Calls)*	8. OFFER DUE DATE/LOCAL TIME
	WILLIAM EPPS	410-962-5610	01:00 PM 01 Aug 2003

9. ISSUED BY — CODE CW31

CONTRACTING DIVISION
PO BOX 1715
BALTIMORE MD 21203-1715

TEL: 410-962-5638
FAX: 410-962-0933

10. THIS ACQUISITION IS
- [X] UNRESTRICTED
- [ ] SET ASIDE: % FOR
  - [ ] SMALL BUSINESS
  - [ ] SMALL DISADV. BUSINESS
  - [ ] 8(A)

SIC: 3731
SIZE STANDARD: 1000

11. DELIVERY FOR FOB DESTINATION UNLESS BLOCK IS MARKED
- [ ] SEE SCHEDULE

12. DISCOUNT TERMS: 0%NET 30 DAYS

- [ ] 13a. THIS CONTRACT IS A RATED ORDER UNDER DPAS (15 CFR 700)

13b. RATING

14. METHOD OF SOLICITATION
- [X] RFQ
- [ ] IFB
- [ ] RFP

15. DELIVER TO — CODE MD0020

OPERATIONS DIV BALTIMORE HARBOR DEBRIS U
CHARLES CAMPBELL
US ARMY CORPS OF ENGINEERS
2603 LEAHY STREET
FT MCHENRY YARD
BALTIMORE MD 21230

16. ADMINISTERED BY — CODE E1P0500

CONTR DIV OPERATIONS BR
PO BOX 1715
BALTIMORE MD 21203-1715

17a. CONTRACTOR/ OFFEROR — CODE 1T7E7

J. WILLIS SMITH AND BROTHER INC.
JERRY SMITH
6211 PENNINGTON AVENUE
BALTIMORE MD 21226

TEL. 410-355-7626 — FACILITY CODE 1T7E7

18a. PAYMENT WILL BE MADE BY — CODE T0B0200

USACE FINANCE CENTER
ATTN: DISBURSING
5722 INTEGRITY DRIVE
MILLINGTON TN 38054-5005

- [ ] 17b. CHECK IF REMITTANCE IS DIFFERENT AND PUT SUCH ADDRESS IN OFFER

18b. SUBMIT INVOICES TO ADDRESS SHOWN IN BLOCK 18a. UNLESS BLOCK BELOW IS CHECKED [ ] SEE ADDENDUM

19. ITEM NO.	20. SCHEDULE OF SUPPLIES/ SERVICES	21. QUANTITY	22. UNIT	23. UNIT PRICE	24. AMOUNT
	SEE SCHEDULE				

25. ACCOUNTING AND APPROPRIATION DATA
See Schedule

26. TOTAL AWARD AMOUNT
$117,074.00

- [ ] 27a. SOLICITATION INCORPORATES BY REFERENCE FAR 52.212-1. 52.212-4. FAR 52.212-3. 52.212-5 ARE ATTACHED. ADDENDA [ ] ARE [ ] ARE NOT ATTACHED
- [X] 27b. CONTRACT/PURCHASE ORDER INCORPORATES BY REFERENCE FAR 52.212-4. FAR 52.212-5 IS ATTACHED. ADDENDA [X] ARE [ ] ARE NOT ATTACHED

28. CONTRACTOR IS REQUIRED TO SIGN THIS DOCUMENT AND RETURN 0 COPIES
- [ ] TO ISSUING OFFICE. CONTRACTOR AGREES TO FURNISH AND DELIVER ALL ITEMS SET FORTH OR OTHERWISE IDENTIFIED ABOVE AND ON ANY ADDITIONAL SHEETS SUBJECT TO THE TERMS AND CONDITIONS SPECIFIED HEREIN.

29. AWARD OF CONTRACT: REFERENCE DACW31-03-T-0086
- [X] OFFER DATED 01-Aug-2003. YOUR OFFER ON SOLICITATION (BLOCK 5), INCLUDING ANY ADDITIONS OR CHANGES WHICH ARE SET FORTH HEREIN, IS ACCEPTED AS TO ITEMS: SEE SCHEDULE

30a. SIGNATURE OF OFFEROR/CONTRACTOR

31a. UNITED STATES OF AMERICA (SIGNATURE OF CONTRACTING OFFICER)

31c. DATE SIGNED: 07-Aug-2003

30b. NAME AND TITLE OF SIGNER *(TYPE OR PRINT)*

30c. DATE SIGNED

31b. NAME OF CONTRACTING OFFICER *(TYPE OR PRINT)*
PATRICIA J HENSLEY / ADDED BY SUMI
TEL: 410-962-7718 EMAIL:

32a. QUANTITY IN COLUMN 21 HAS BEEN
- [ ] RECEIVED
- [ ] INSPECTED
- [ ] ACCEPTED, AND CONFORMS TO THE CONTRACT, EXCEPT AS NOTED

33. SHIP NUMBER
- [ ] PARTIAL
- [ ] FINAL

34. VOUCHER NUMBER

35. AMOUNT VERIFIED CORRECT FOR

32b. SIGNATURE OF AUTHORIZED GOVT. REPRESENTATIVE

32c. DATE

36. PAYMENT
- [ ] COMPLETE
- [ ] PARTIAL
- [ ] FINAL

37. CHECK NUMBER

38. S/R ACCOUNT NUMBER

39. S/R VOUCHER NUMBER

40. PAID BY

41a. I CERTIFY THIS ACCOUNT IS CORRECT AND PROPER FOR PAYMENT

41b. SIGNATURE AND TITLE OF CERTIFYING OFFICER

41c. DATE

42a. RECEIVED BY *(Print)*

42b. RECEIVED AT *(Location)*

42c. DATE REC'D *(YY/MM/DD)*

42d. TOTAL CONTAINERS

Section SF 1449 - CONTINUATION SHEET

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1	Lump Sum	$117,074.00	$117,074.00

REFITTING AND REPAIR OF BD7
FFP
FURNISH ALL MATERIALS, LABOR AND EQUIPMENT REQUIRED FOR RE-RIGGING, RE-FITTING, MAINTENANCE, AND REPAIR OF THE CRANE BARGE BD7 (FORMERLY THE CN-4) PER THE ATTAHCED STATEMENT OF WORK. ******* WORK SHALL BE ACCOMPLISHED WITHIN AN 80 MILE RADIUS OF THE BALTIMORE DISTRICT'S WASHINGTON D.C. YARDS OFFICE *********
POC (REQUESTOR) CHARLES CAMPBELL (202)546-2132 OR GREG BARNES (410)962-3664
POC (VENDOR) MIKE SMITH (410)355-7626/(410)355-3708 (FAX)/ jgerard@qis.net
POC (CONTRACTING OFFICE) WILLIAM EPPS (410)962-5610

PURCHASE REQUEST NUMBER: W81W3G-3175-3545

NET AMT	$117,074.00
ACRN AA Funded Amount	$117,074.00

FOB: Destination

INSPECTION AND ACCEPTANCE TERMS

Supplies/services will be inspected/accepted at:

CLIN	INSPECT AT	INSPECT BY	ACCEPT AT	ACCEPT BY
0001	N/A	N/A	N/A	N/A

DELIVERY INFORMATION

CLIN	DELIVERY DATE	QUANTITY	SHIP TO ADDRESS	UIC

0001	POP 11-AUG-2003 TO 24-SEP-2003	N/A	OPERATIONS DIV BALTIMORE HARBOR MD0020 DEBRIS U CHARLES CAMPBELL US ARMY CORPS OF ENGINEERS 2603 LEAHY STREET FT MCHENRY YARD BALTIMORE MD 21230 (202)546-2132 FOB: Destination

ACCOUNTING AND APPROPRIATION DATA

AA: 96X49020000 082420 2520RF2120NA NA 96181
COST CODE: 000000000000
AMOUNT: $117,074.00

CLAUSES INCORPORATED BY REFERENCE

52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	JUL 1995
52.212-4	Contract Terms and Conditions--Commercial Items	FEB 2002
52.219-3	Notice of Total HUBZone Set-Aide	JAN 1999
52.222-3	Convict Labor	AUG 1996
52.222-21	Prohibition Of Segregated Facilities	FEB 1999
52.222-26	Equal Opportunity	APR 2002
52.222-35	Equal Opportunity For Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-36	Affirmative Action For Workers With Disabilities	JUN 1998
52.222-37	Employment Reports On Special Disabled Veterans, Veterans Of The Vietnam Era and Other Eligible Veterans	DEC 2001
52.222-41	Service Contract Act Of 1965, As Amended	MAY 1989
52.225-13	Restrictions on Certain Foreign Purchases	JUL 2000
52.232-33	Payment by Electronic Funds Transfer--Central Contractor Registration	MAY 1999
52.233-3	Protest After Award	AUG 1996
52.237-3	Continuity Of Services	JAN 1991
52.242-15	Stop-Work Order	AUG 1989
52.243-5	Changes and Changed Conditions	APR 1984
52.246-1	Contractor Inspection Requirements	APR 1984
52.247-34	F.O.B. Destination	NOV 1991
52.253-1	Computer Generated Forms	JAN 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004	Required Central Contractor Registration	NOV 2001
252.219-7011	Notification to Delay Performance	JUN 1998
252.225-7001	Buy American Act And Balance Of Payments Program	MAR 1998
252.225-7002	Qualifying Country Sources As Subcontractors	DEC 1991

252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.246-7000	Material Inspection And Receiving Report	DEC 1991

CLAUSES INCORPORATED BY FULL TEXT

52.212-5 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS--COMMERCIAL ITEMS (APR 2001) (DEVIATION)

(a) Comptroller General Examination of Record. The Contractor agrees to comply with the provisions of this paragraph (a) if this contract was awarded using other than sealed bid, is in excess of the simplified acquisition threshold, and does not contain the clause at 52.215-5, Audit and Records-Negotiation.

(1) The Comptroller General of the United States, or an authorized representative of the Comptroller General, shall have access to the right to examine any of the Contractor's directly pertinent records involving transactions related to this contract.

(2) The Contractor shall make available at its offices at all reasonable times, the records, materials, and other evidence for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in FAR Subpart 4.7, Contractor Records Retention, of the other clauses of this contract. If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement. Records relating to appeals under the disputes clause or to litigation or the settlement of claims arising under or relating to this contract shall be made available until such appeals, litigation, or claims are finally resolved.

(3) As used in this clause, records include books, documents, accounting procedures and practices, and other data, regardless of form. This does not require the Contractor to create or maintain any record that the contractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(b) The Contractor is not required to include any FAR clause, other than those listed below (and as may be required by an addenda to this paragraph to establish the reasonableness of prices under Part 15), in a subcontract for commercial items or commercial components –

(1) 52.222-26, Equal Opportunity (E.O. 11246);

(2) 52.222-35, Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (38 U.S.C. 4212);

(3) 52.222-36, Affirmative Action for Workers with Disabilities (29 U.S.C. 793); and

(4) 52.247-64, Preference for Privately-Owned U.S.- Flag Commercial Vessels (46 U.S.C. 1241)(flow down not required for subcontracts awarded beginning May 1, 1996).

(5) 52.222-41, the Service Contract Act as Amended (41 U.S.C. 351, et seq.) Subcontracts for certain commercial services may be exempt from coverage if they meet the criteria in FAR 22.1103-4(c) or (d) (see DoD class deviation number 2000-O0006).

(End of clause)

52.222-42 STATEMENT OF EQUIVALENT RATES FOR FEDERAL HIRES (MAY 1989)

In compliance with the Service Contract Act of 1965, as amended, and the regulations of the Secretary of Labor (29

CFR Part 4), this clause identifies the classes of service employees expected to be employed under the contract and states the wages and fringe benefits payable to each if they were employed by the contracting agency subject to the provisions of 5 U.S.C. 5341 or 5332.

THIS STATEMENT IS FOR INFORMATION ONLY: IT IS NOT A WAGE DETERMINATION
Employee Class Monetary Wage-Fringe Benefits

rigger @ $16.95 per hour; sheet-metal worker, maintenance @ $16.95 per hour; welder, combination, maintenance @ $16.95 per hour; machinery maintenance mechanic @ $16.95 per hour; and laborer @ $12.23 per hour.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

HTTP://FARSITE.HILL.AF.MIL

(End of clause)

252.212-7001 CONTRACT TERMS AND CONDITIONS REQUIRED TO IMPLEMENT STATUTES OR EXECUTIVE ORDERS APPLICABLE TO DEFENSE ACQUISITIONS OF COMMERCIAL ITEMS (APR 2001) (DEVIATION)

(a) In addition to the clauses listed in paragraph (b) of the Contract Terms and Conditions Required to Implement Statutes or Executive Orders--Commercial Items (DEVIATION) clause of this contract, the Contractor shall include the terms of the following clause, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014	Preference for Domestic Specialty Metals, Alternate I (MAR 1998) (10 U.S.C. 2533a).
252.247-7023	Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631)
252.247-7024	Notification of Transportation of Supplies by Sea (MAR 2000) (10 U.S.C. 2631)

(End of clause)

WAGE RATES

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                    WAGE DETERMINATION DECISION
                     OF THE SECRETARY OF LABOR


      The following wage determination will be used to conform
      with the requirements of the Service Contract Act of 1965
      (29 CFR 4) of the General Provisions:
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Decision No. 94-2247 (Rev. 23) dated 3 June 2003

State(s): Maryland
Areas: Maryland COUNTIES OF Anne Arundel, Baltimore, Carroll, Harford, Howard, Baltimore City

WAGE DETERMINATION NO: 94-2247 REV (23) AREA: MD,BALTIMORE

WAGE DETERMINATION NO: 94-2247 REV (23) AREA: MD,BALTIMORE
REGISTER OF WAGE DETERMINATIONS UNDER | U.S. DEPARTMENT OF LABOR
FOR OFFICIAL USE ONLY BY FEDERAL AGENCIES PARTICIPATING IN MOU WITH DOL
| WASHINGTON D.C. 20210
|
|
|
| Wage Determination No.: 1994-2247
William W.Gross Division of | Revision No.: 23
Director Wage Determinations | Date Of Last Revision: 06/03/2003

State: Maryland
Area: Maryland Counties of Anne Arundel, Baltimore, Baltimore City, Carroll, Harford, Howard

Fringe Benefits Required Follow the Occupational Listing

OCCUPATION CODE - TITLE	MINIMUM WAGE RATE
01000 - Administrative Support and Clerical Occupations	
01011 - Accounting Clerk I	10.77
01012 - Accounting Clerk II	12.59
01013 - Accounting Clerk III	13.70
01014 - Accounting Clerk IV	16.07
01030 - Court Reporter	16.43
01050 - Dispatcher, Motor Vehicle	15.71
01060 - Document Preparation Clerk	11.27
01070 - Messenger (Courier)	9.60
01090 - Duplicating Machine Operator	11.13
01110 - Film/Tape Librarian	11.69
01115 - General Clerk I	9.99
01116 - General Clerk II	12.21
01117 - General Clerk III	14.07
01118 - General Clerk IV	15.52
01120 - Housing Referral Assistant	18.41
01131 - Key Entry Operator I	10.92
01132 - Key Entry Operator II	12.25
01191 - Order Clerk I	13.05
01192 - Order Clerk II	14.50
01261 - Personnel Assistant (Employment) I	13.16
01262 - Personnel Assistant (Employment) II	14.75
01263 - Personnel Assistant (Employment) III	17.05
01264 - Personnel Assistant (Employment) IV	18.97
01270 - Production Control Clerk	16.95
01290 - Rental Clerk	14.19
01300 - Scheduler, Maintenance	15.26
01311 - Secretary I	15.26
01312 - Secretary II	16.56
01313 - Secretary III	18.41
01314 - Secretary IV	20.15
01315 - Secretary V	22.36
01320 - Service Order Dispatcher	14.06
01341 - Stenographer I	14.69
01342 - Stenographer II	16.46
01400 - Supply Technician	20.15
01420 - Survey Worker (Interviewer)	14.94

01460 - Switchboard Operator-Receptionist	10.65
01510 - Test Examiner	16.43
01520 - Test Proctor	16.43
01531 - Travel Clerk I	9.74
01532 - Travel Clerk II	10.63
01533 - Travel Clerk III	11.73
01611 - Word Processor I	11.93
01612 - Word Processor II	14.38
01613 - Word Processor III	15.92
03000 - Automatic Data Processing Occupations	
03010 - Computer Data Librarian	12.80
03041 - Computer Operator I	14.30
03042 - Computer Operator II	15.82
03043 - Computer Operator III	18.73
03044 - Computer Operator IV	20.44
03045 - Computer Operator V	22.83
03071 - Computer Programmer I (1)	18.15
03072 - Computer Programmer II (1)	22.19
03073 - Computer Programmer III (1)	26.89
03074 - Computer Programmer IV (1)	27.62
03101 - Computer Systems Analyst I (1)	27.62
03102 - Computer Systems Analyst II (1)	27.62
03103 - Computer Systems Analyst III (1)	27.62
03160 - Peripheral Equipment Operator	14.30
05000 - Automotive Service Occupations	
05005 - Automotive Body Repairer, Fiberglass	18.28
05010 - Automotive Glass Installer	15.64
05040 - Automotive Worker	15.64
05070 - Electrician, Automotive	16.82
05100 - Mobile Equipment Servicer	14.46
05130 - Motor Equipment Metal Mechanic	16.82
05160 - Motor Equipment Metal Worker	15.64
05190 - Motor Vehicle Mechanic	16.82
05220 - Motor Vehicle Mechanic Helper	13.86
05250 - Motor Vehicle Upholstery Worker	15.64
05280 - Motor Vehicle Wrecker	15.64
05310 - Painter, Automotive	16.18
05340 - Radiator Repair Specialist	15.64
05370 - Tire Repairer	13.77
05400 - Transmission Repair Specialist	16.82
07000 - Food Preparation and Service Occupations	
(not set) - Food Service Worker	8.84
07010 - Baker	11.44
07041 - Cook I	10.17
07042 - Cook II	11.03
07070 - Dishwasher	8.82
07130 - Meat Cutter	13.07
07250 - Waiter/Waitress	8.09
09000 - Furniture Maintenance and Repair Occupations	
09010 - Electrostatic Spray Painter	15.95
09040 - Furniture Handler	13.31
09070 - Furniture Refinisher	15.95
09100 - Furniture Refinisher Helper	13.66
09110 - Furniture Repairer, Minor	14.81
09130 - Upholsterer	15.95
11030 - General Services and Support Occupations	
11030 - Cleaner, Vehicles	8.97
11060 - Elevator Operator	9.23
11090 - Gardener	10.75
11121 - House Keeping Aid I	8.76
11122 - House Keeping Aid II	9.22
11150 - Janitor	9.22
11210 - Laborer, Grounds Maintenance	9.68
11240 - Maid or Houseman	8.76
11270 - Pest Controller	10.93
11300 - Refuse Collector	9.22

11330 - Tractor Operator	10.54
11360 - Window Cleaner	9.75
12000 - Health Occupations	
12020 - Dental Assistant	12.97
12040 - Emergency Medical Technician (EMT)/Paramedic/Ambulance Driver	12.85
12071 - Licensed Practical Nurse I	14.85
12072 - Licensed Practical Nurse II	16.74
12073 - Licensed Practical Nurse III	18.38
12100 - Medical Assistant	12.11
12130 - Medical Laboratory Technician	13.89
12160 - Medical Record Clerk	12.76
12190 - Medical Record Technician	15.20
12221 - Nursing Assistant I	8.45
12222 - Nursing Assistant II	9.50
12223 - Nursing Assistant III	11.23
12224 - Nursing Assistant IV	12.61
12250 - Pharmacy Technician	12.45
12280 - Phlebotomist	11.51
12311 - Registered Nurse I	23.08
12312 - Registered Nurse II	26.05
12313 - Registered Nurse II, Specialist	26.05
12314 - Registered Nurse III	32.86
12315 - Registered Nurse III, Anesthetist	32.86
12316 - Registered Nurse IV	35.56
13000 - Information and Arts Occupations	
13002 - Audiovisual Librarian	20.71
13011 - Exhibits Specialist I	17.60
13012 - Exhibits Specialist II	21.29
13013 - Exhibits Specialist III	22.85
13041 - Illustrator I	17.60
13042 - Illustrator II	21.29
13043 - Illustrator III	22.85
13047 - Librarian	21.62
13050 - Library Technician	14.06
13071 - Photographer I	12.88
13072 - Photographer II	16.00
13073 - Photographer III	19.35
13074 - Photographer IV	20.77
13075 - Photographer V	25.12
15000 - Laundry, Dry Cleaning, Pressing and Related Occupations	
15010 - Assembler	7.30
15030 - Counter Attendant	7.30
15040 - Dry Cleaner	9.73
15070 - Finisher, Flatwork, Machine	7.30
15090 - Presser, Hand	7.30
15100 - Presser, Machine, Drycleaning	7.30
15130 - Presser, Machine, Shirts	7.30
15160 - Presser, Machine, Wearing Apparel, Laundry	7.30
15190 - Sewing Machine Operator	10.56
15220 - Tailor	11.35
15250 - Washer, Machine	8.20
19000 - Machine Tool Operation and Repair Occupations	
19010 - Machine-Tool Operator (Toolroom)	17.95
19040 - Tool and Die Maker	22.00
21000 - Material Handling and Packing Occupations	
21010 - Fuel Distribution System Operator	16.99
21020 - Material Coordinator	16.94
21030 - Material Expediter	16.94
21040 - Material Handling Laborer	12.72
21050 - Order Filler	11.90
21071 - Forklift Operator	14.73
21080 - Production Line Worker (Food Processing)	14.73
21100 - Shipping/Receiving Clerk	12.50
21130 - Shipping Packer	13.57
21140 - Store Worker I	12.13
21150 - Stock Clerk (Shelf Stocker; Store Worker II)	14.77

21210 - Tools and Parts Attendant	16.51
21400 - Warehouse Specialist	15.11
23000 - Mechanics and Maintenance and Repair Occupations	
23010 - Aircraft Mechanic	20.92
23040 - Aircraft Mechanic Helper	17.14
23050 - Aircraft Quality Control Inspector	21.66
23060 - Aircraft Servicer	18.73
23070 - Aircraft Worker	19.50
23100 - Appliance Mechanic	18.03
23120 - Bicycle Repairer	13.77
23125 - Cable Splicer	22.99
23130 - Carpenter, Maintenance	17.40
23140 - Carpet Layer	16.96
23160 - Electrician, Maintenance	20.62
23181 - Electronics Technician, Maintenance I	16.60
23182 - Electronics Technician, Maintenance II	20.02
23183 - Electronics Technician, Maintenance III	20.76
23260 - Fabric Worker	16.29
23290 - Fire Alarm System Mechanic	19.43
23310 - Fire Extinguisher Repairer	15.91
23340 - Fuel Distribution System Mechanic	19.54
23370 - General Maintenance Worker	15.42
23400 - Heating, Refrigeration and Air Conditioning Mechanic	16.58
23430 - Heavy Equipment Mechanic	17.96
23440 - Heavy Equipment Operator	17.52
23460 - Instrument Mechanic	18.53
23470 - Laborer	11.79
23500 - Locksmith	17.09
23530 - Machinery Maintenance Mechanic	18.19
23550 - Machinist, Maintenance	16.58
23580 - Maintenance Trades Helper	13.66
23640 - Millwright	19.64
23700 - Office Appliance Repairer	17.86
23740 - Painter, Aircraft	18.16
23760 - Painter, Maintenance	17.02
23790 - Pipefitter, Maintenance	20.60
23800 - Plumber, Maintenance	18.52
23820 - Pneudraulic Systems Mechanic	18.53
23850 - Rigger	18.24
23870 - Scale Mechanic	17.21
23890 - Sheet-Metal Worker, Maintenance	16.58
23910 - Small Engine Mechanic	15.42
23930 - Telecommunication Mechanic I	15.42
23931 - Telecommunication Mechanic II	17.12
23950 - Telephone Lineman	16.58
23960 - Welder, Combination, Maintenance	16.58
23965 - Well Driller	17.01
23970 - Woodcraft Worker	18.53
23980 - Woodworker	14.98
24000 - Personal Needs Occupations	
24570 - Child Care Attendant	8.69
24580 - Child Care Center Clerk	12.45
24600 - Chore Aid	8.61
24630 - Homemaker	11.77
25000 - Plant and System Operation Occupations	
25010 - Boiler Tender	20.04
25040 - Sewage Plant Operator	18.02
25070 - Stationary Engineer	20.04
25190 - Ventilation Equipment Tender	15.19
25210 - Water Treatment Plant Operator	17.27
27000 - Protective Service Occupations	
(not set) - Police Officer	21.76
27004 - Alarm Monitor	14.25
27006 - Corrections Officer	17.03
27010 - Court Security Officer	19.46
27040 - Detention Officer	18.29

27070 - Firefighter	19.72
27101 - Guard I	10.46
27102 - Guard II	15.15
28000 - Stevedoring/Longshoremen Occupations	
28010 - Blocker and Bracer	17.21
28020 - Hatch Tender	17.21
28030 - Line Handler	17.21
28040 - Stevedore I	15.69
28050 - Stevedore II	16.90
29000 - Technical Occupations	
21150 - Graphic Artist	22.09
29010 - Air Traffic Control Specialist, Center (2)	29.85
29011 - Air Traffic Control Specialist, Station (2)	20.59
29012 - Air Traffic Control Specialist, Terminal (2)	22.67
29023 - Archeological Technician I	15.37
29024 - Archeological Technician II	18.33
29025 - Archeological Technician III	22.70
29030 - Cartographic Technician	22.13
29035 - Computer Based Training (CBT) Specialist/ Instructor	25.27
29040 - Civil Engineering Technician	21.29
29061 - Drafter I	12.35
29062 - Drafter II	15.10
29063 - Drafter III	18.76
29064 - Drafter IV	22.70
29081 - Engineering Technician I	17.05
29082 - Engineering Technician II	18.84
29083 - Engineering Technician III	21.16
29084 - Engineering Technician IV	25.53
29085 - Engineering Technician V	29.15
29086 - Engineering Technician VI	32.93
29090 - Environmental Technician	19.40
29100 - Flight Simulator/Instructor (Pilot)	27.45
29160 - Instructor	21.50
29210 - Laboratory Technician	17.23
29240 - Mathematical Technician	22.61
29361 - Paralegal/Legal Assistant I	17.60
29362 - Paralegal/Legal Assistant II	19.46
29363 - Paralegal/Legal Assistant III	23.79
29364 - Paralegal/Legal Assistant IV	28.77
29390 - Photooptics Technician	20.55
29480 - Technical Writer	25.26
29491 - Unexploded Ordnance (UXO) Technician I	18.97
29492 - Unexploded Ordnance (UXO) Technician II	22.96
29493 - Unexploded Ordnance (UXO) Technician III	27.51
29494 - Unexploded (UXO) Safety Escort	18.97
29495 - Unexploded (UXO) Sweep Personnel	18.97
29620 - Weather Observer, Senior (3)	21.07
29621 - Weather Observer, Combined Upper Air and Surface Programs (3)	18.95
29622 - Weather Observer, Upper Air (3)	18.95
31000 - Transportation/ Mobile Equipment Operation Occupations	
31030 - Bus Driver	15.95
31260 - Parking and Lot Attendant	10.80
31290 - Shuttle Bus Driver	14.12
31300 - Taxi Driver	10.05
31361 - Truckdriver, Light Truck	13.56
31362 - Truckdriver, Medium Truck	14.13
31363 - Truckdriver, Heavy Truck	16.76
31364 - Truckdriver, Tractor-Trailer	16.76
99000 - Miscellaneous Occupations	
99020 - Animal Caretaker	8.98
99030 - Cashier	7.92
99041 - Carnival Equipment Operator	8.33
99042 - Carnival Equipment Repairer	8.66
99043 - Carnival Worker	7.29
99050 - Desk Clerk	8.33
99095 - Embalmer	21.22

99300 - Lifeguard	8.91
99310 - Mortician	20.84
99350 - Park Attendant (Aide)	11.17
99400 - Photofinishing Worker (Photo Lab Tech., Darkroom Tech)	8.91
99500 - Recreation Specialist	14.42
99510 - Recycling Worker	10.54
99610 - Sales Clerk	8.91
99620 - School Crossing Guard (Crosswalk Attendant)	9.56
99630 - Sport Official	7.74
99658 - Survey Party Chief (Chief of Party)	14.97
99659 - Surveying Technician (Instr. Person/Surveyor Asst./Instr.)	12.45
99660 - Surveying Aide	8.15
99690 - Swimming Pool Operator	11.78
99720 - Vending Machine Attendant	10.47
99730 - Vending Machine Repairer	11.78
99740 - Vending Machine Repairer Helper	10.47

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:
HEALTH & WELFARE: $2.36 an hour or $94.40 a week or $409.07 a month
VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; 3 weeks after 8 years, and 4 weeks after 15 years. Length of service includes the whole span of continuous service with the present contractor or successor, wherever employed, and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)
HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day, Martin Luther King Jr.'s Birthday, Washington's Birthday, Memorial Day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)
THE OCCUPATIONS WHICH HAVE PARENTHESES AFTER THEM RECEIVE THE FOLLOWING BENEFITS (as numbered):
1) Does not apply to employees employed in a bona fide executive, administrative, or professional capacity as defined and delineated in 29 CFR 541. (See CFR 4.156)
2) APPLICABLE TO AIR TRAFFIC CONTROLLERS ONLY - NIGHT DIFFERENTIAL: An employee is entitled to pay for all work performed between the hours of 6:00 P.M. and 6:00 A.M. at the rate of basic pay plus a night pay differential amounting to 10 percent of the rate of basic pay.
3) WEATHER OBSERVERS - NIGHT PAY & SUNDAY PAY: If you work at night as part of a regular tour of duty, you will earn a night differential and receive an additional 10% of basic pay for any hours worked between 6pm and 6am. If you are a full-time employed (40 hours a week) and Sunday is part of your regularly scheduled workweek, you are paid at your rate of basic pay plus a Sunday premium of 25% of your basic rate for each hour of Sunday work which is not overtime (i.e. occasional work on Sunday outside the normal tour of duty is considered overtime work).
HAZARDOUS PAY DIFFERENTIAL: An 8 percent differential is applicable to employees employed in a position that represents a high degree of hazard when working with or in close proximity to ordinance, explosives, and incendiary materials. This includes work such as screening, blending, dying, mixing, and pressing of sensitive ordance, explosives, and pyrotechnic compositions such as lead azide, black powder and photoflash powder. All dry-house activities involving propellants or explosives. Demilitarization, modification, renovation, demolition, and maintenance operations on sensitive ordnance, explosives and incendiary materials. All operations involving regrading and cleaning of artillery ranges.
A 4 percent differential is applicable to employees employed in a position that represents a low degree of hazard when working with, or in close proximity to ordance, (or employees possibly adjacent to) explosives and incendiary materials which involves potential injury such as laceration of hands, face, or arms of the employee engaged in the operation, irritation of the skin, minor burns and the like; minimal damage to immediate or adjacent work area or equipment being used. All operations involving, unloading, storage, and hauling of ordance, explosive, and incendiary ordnance material other than small arms ammunition. These differentials are only applicable to work that has been specifically designated by the agency for ordance, explosives, and incendiary material differential pay.
** UNIFORM ALLOWANCE **
If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract, by the employer, by the state or

local law, etc.), the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition, where uniform cleaning and maintenance is made the responsibility of the employee, all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount, or the furnishing of contrary affirmative proof as to the actual cost), reimburse all employees for such cleaning and maintenance at a rate of $3.35 per week (or $.67 cents per day). However, in those instances where the uniforms furnished are made of "wash and wear" materials, may be routinely washed and dried with other personal garments, and do not require any special treatment such as dry cleaning, daily washing, or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract, by the contractor, by law, or by the nature of the work, there is no requirement that employees be reimbursed for uniform maintenance costs.

** NOTES APPLYING TO THIS WAGE DETERMINATION **

Source of Occupational Title and Descriptions:

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations," Fourth Edition, January 1993, as amended by the Third Supplement, dated March 1997, unless otherwise indicated. This publication may be obtained from the Superintendent of Documents, at 202-783-3238, or by writing to the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Copies of specific job descriptions may also be obtained from the appropriate contracting officer.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE {Standard Form 1444 (SF 1444)}

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination), be classified by the contractor so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined. Such conforming process shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees. The conformed classification, wage rate, and/or fringe benefits shall be retroactive to the commencement date of the contract. {See Section 4.6 (C)(vi)} When multiple wage determinations are included in a contract, a separate SF 1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid, the contractor identifies the need for a conformed occupation) and computes a proposed rate).

2) After contract award, the contractor prepares a written report listing in order proposed classification title), a Federal grade equivalency (FGE) for each proposed classification), job description), and rationale for proposed wage rate), including information regarding the agreement or disagreement of the authorized representative of the employees involved, or where there is no authorized representative, the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action, together with the agency's recommendations and pertinent information including the position of the contractor and the employees, to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, for review. (See section 4.6(b)(2) of Regulations 29 CFR Part 4).

4) Within 30 days of receipt, the Wage and Hour Division approves, modifies, or disapproves the action via transmittal to the agency contracting officer, or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.
Information required by the Regulations must be submitted on SF 1444 or bond paper. When preparing a conformance request, the "Service Contract Act Directory of Occupations" (the Directory) should be used to compare job definitions to insure that duties requested are not performed by a classification already listed in the wage determination. Remember, it is not the job title, but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split, combine, or subdivide classifications listed in the wage determination.

24 May 2003

SCOPE OF WORK
RE-RIGGING, RE_FITTING, MAINTENANCE AND REPAIRS
OF THE CRANE BARGE CN-4

1. GENERAL INFORMATION

The Crane Barge CN-4 was formerly used as a track crane barge in support of operations in the Jacksonville, Florida District. The CN-4 was used mainly in a freshwater environment. The Baltimore District took possession of the barge in May of 2003 with the intent to use it in support of debris removal operations as a replacement for the Crane Barge BD-7, a pedestal crane barge used at the Washington, D.C. yards. The CN-4 is a steel barge 80 feet in length, 29 feet in width and 7 feet in height. The BD-7 is currently stored at the Smith and Sons Shipyard in Baltimore, Maryland. The crane is a 35/50 Northwest air operated with 60 feet of latch boom. The crane that is to be placed on the CN-4 after the completion of the re-rigging, re-fitting, and repairs is located at the Washington, D.C. Yards. The CN-4 is currently berthed at the Baltimore Districts' Fort McHenry Yards boat pier in Baltimore, Maryland. The CN-4 is to renamed/designated as the BD-2.

1.1 Point of Contacts:

Charles Campbell	Greg Barnes
Chief, Debris Removal Team	Chief, Survey/Debris Removal Section
charles.campbell@usace.army.mil	greg.barnes@usace.army.mil
Phone = 202-546-2132	410-962-3664
Cell = 410-960-2443	410-598-1851

2.0 TECHNICAL SCOPE

2.1.Location of Work

The work within this scope shall be accomplished within an 80-mile radius of the Baltimore District's Washington, D.C. Yards office.

2.2. Intent

It is the intent of the work to accomplish all the necessary work to re-rig, re-fit, repair and perform the maintenance on the CN-4 to make it fully useable as a pedestal mounted crane barge. The pedestal for the crane is to be removed from the BD-7 and fitted to the CN-4. The crane which is to be mounted on the barge is a 35/50 Northwest air operated with 60 feet of latch boom and is currently located/stored at the Washington, D.C. Yards.

2.3. General Requirements

Contractor is responsible for supplying all the necessary services, equipment, labor and materials to complete the herein described work in a professional and timely fashion. The work will include welding modifications and fabrications, which shall be performed by a certified welder of steel and meet ABS standards. Modifications and fabrications shall conform to the drawings (DWG. NO. 668-E300-01, 2 sheets) supplied for such work. All work is to be completed to meet manufacturer specifications and warranty requirements of materials used. All work is to meet EPA standards. All work is to meet USCG standards. Fair scrap metal market value of the existing BD-7 crane barge is to be applied to this work as a reduction to the overall cost. Contractor shall remove the crane pedestal from the BD-7 and be responsible for the removal and/or storage arrangements and fees of the BD-7 within 5 calendar days of notice to proceed (NTP). Fair market value for scrap metal of the BD-7 shall be clearly noted on the proposal. Pricing shall be by line item with an overall total price noted.

2.4 Detailed Scope of Work

2.4.1 Commencement of Work

Work shall commence upon receipt of contract issue/notice to proceed (NTP).

2.4.2 Work to be Performed

Work will include the hauling, blocking, and pressure power-washing of the vessel to extract all loose flaking paint and marine growth, welding as noted, all modifications and fabrications shall conform to the provided drawings (DWG. NO. 668-E300-01, 2 sheets) using materials listed on said drawings, scraping, grinding, sanding, primer application, painting, the re-floating, the mounting and assembly the Northwest pedestal crane at the Washington, D.C. yard, and the re-certification of said Northwest pedestal crane and details per the following items:

2.4.2a Contractor will install/construct two bulkheads for the support of the pedestal and crane as per the drawings (DWG. NO. 668-E300-01, 2 sheets).

2.4.2b Contractor will install and modify trusses for the support of the pedestal and crane as per the drawings (DWG. NO. 668-E300-01, 2 sheets).

2.4.2c Contractor to remove crane foundation (pedestal) from the crane barge BD-7 and install it on the CN-4 to suit existing longitudinal structure on barge CN-4 as per the drawings (DWG. NO. 668-E300-01, 2 sheets). As needed/necessary the manhole located near the pedestal mount shall be relocated to provide easy access to the same hold when crane is mounted as per the drawings as per the drawings (DWG. NO. 668-E300-01, 2 sheets).

2.4.2d Contractor to completely remove the CN-4 existing spud wells, to include piping, and patching holes with ½ inch steel plating as per the drawings (DWG. NO. 668-E300-01, 2 sheets).

2.4.2e Contractor to install/fabricate new spud well on the CN-4 to suit the existing spuds from the BD-7 which are 15 inches in diameter, as per the drawings (DWG. NO. 668-E300-01, 2 sheets).

2.4.2f Contractor shall inspect for and repair broken welds below deck and shall prime and repaint repaired areas.

2.4.2g Contractor to weld in a continuous weld the forward rake bulkhead where it is presently spot-welded on the rake side of the bulkhead.

2.4.2h Contractor prime and paint all new material and disturbed painted areas, following paint manufacturers specifications with marine grade primer and DeVoe paint

2.4.2I Contractor to sandblast, sand or grind all rust from both rake ends, bottom, and sides to feather edge existing paint of the CN-4 and applying marine grade primer.

2.4.2j Contractor shall apply two coats of anti-fouling paint to the bottom and sides up to the waterline, apply one coat of gloss black DeVoe paint from the waterline to the deck, and repaint all numbers and lettering with DeVoe 229 gloss white paint. The lettering CN-4 to be changed to BD-2.

2.4.2k Contractor shall remove and replace, with new, two tie downs located on deck.

2.4.2l Contractor to mount/fabricate spud cradles on CN-4 deck per measurements from the spud cradles on the BD-7.

2.4.2m Contractor shall install Zinc Anodes to the sides and ends placing one Anode per 10 feet of length and install 5 Zinc Anodes on the rake end compartment used for ballast (freshwater will be used as ballast to counter crane weight).

2.4.2n Contractor shall perform the necessary tests and to insure there no air leaks and no water leaks at any hull penetrations

2.4.2o Contractor shall sandblast topside deck and pedestal to remove all loose and flaking paint to prepare the deck for painting by Corps personnel.

2.4.2p Contractor will re-mount the Northwest crane at the Washington, D.C. Yard, which includes re-assembling, testing and re-certification of said crane.

3 Communication

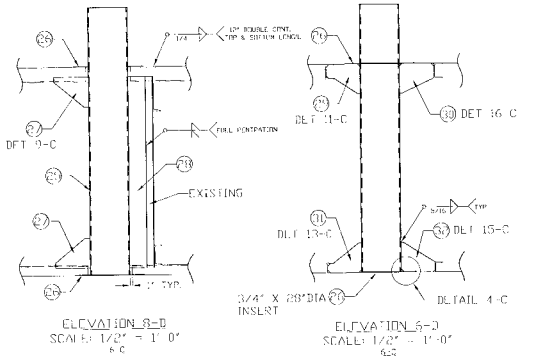
The contractor shall remain in contact with Corps POC, during the commencement of the work activities as to allow the POC to review the status of the work. Contractor shall immediately inform Corps POC of problems that may affect the completion of the work per the schedule. Contractor shall notify Mr. Charles Campbell within 72 hours of need to deliver barge to Washington, D.C. Yard for the installation of crane.

4 Documents/Information/Services provided by the Government to the contractor.

Vessel diagrams/drawings are included and any questions pertaining to said drawings may be referred to Mr. Richard McMullen, USACE Marine Design Center, Philadelphia, Pennsylvania, phone 215-656-6850. Vessel inspection can be performed at the Fort McHenry Yard Pier. Baltimore District will deliver the CN-4 barge to the contractor and upon completion of contractors yard work will pickup and deliver CN-4 barge to the Washington, D.C. yards for the contractor to mount the crane.

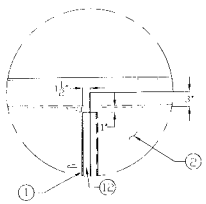
5 Period of Performance

All work shall be completed within 45 calendar days of the initial delivery of barge to contractor .

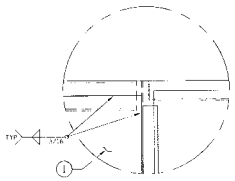


ELEVATION 8-D
SCALE: 1/2" = 1' 0"
6-C

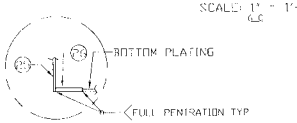
ELEVATION 6-D
SCALE: 1/2" = 1'-0"
6-C



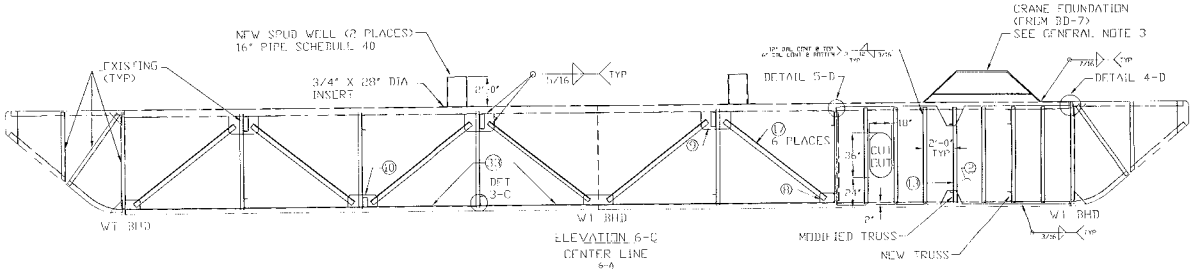
DETAIL 5-D
SCALE: 1" = 1' 0"
6-C



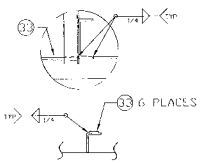
DETAIL 4 D
SCALE: 1" = 1'-0"
6-C



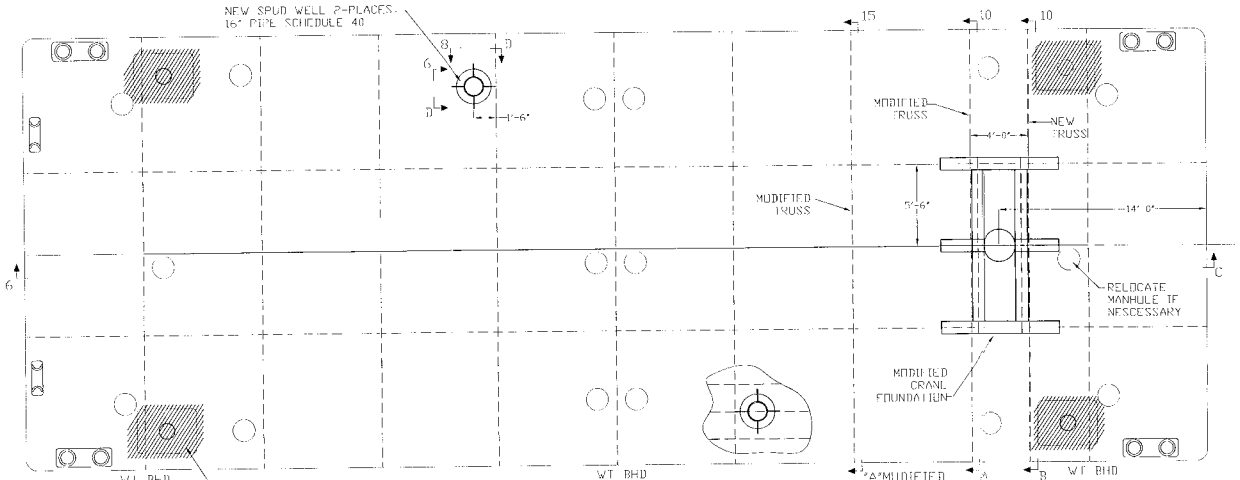
DETAIL 4-C
SCALE: 1 1/2" = 1'-0"
6-D



ELEVATION 6-C
CENTER LINE
6-A



DETAIL 3-C
SCALE: 1 1/2" = 1'-0"
6-C



WT BHD
PLAN 6-A
MAIN DECK

BILL OF MATERIAL

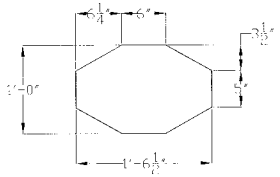
ITEM	QUAN	DESCRIPTION	DETAIL	MATERIAL
1	1	PLATE 1/4"	11'-0" X 41'-10"	13-B	ASTM 36
2	1		11'-10 1/4" X 6'-7"	6-C	ASTM 36
3	3	PLATE 3/8"	18 1/4" X 7"	13-B	ASTM 36
4	1		15" X 7"	13-B	ASTM 36
5	9		12" X 12"	12-B, 13-D	ASTM-36
6	5		7" X 7"	12-B, 14-D	ASTM-36
7	2		17 3/8" X 7"	13-B	ASTM-36
8	4		12" X 8"	6-C, 12-C	ASTM 36
9	3		24" X 14"	6-C, 9-D	ASTM-36
10	1		24" X 10"	6-C, 11-D	ASTM 36
11	8		18 1/2" X 12"	10-A,B, 16-D	ASTM 36
12	5	3" X 3" X 3/8" L	6'-0" LG	13-B	ASTM 36
13	7		6'-5" LG	6-C	ASTM 36
14	4		3'-7" LG	10-B	ASTM-36
15	16		3'-0" LG	10 A,B	ASTM-36
16	4		6'-6 1/2" LG	10 B	ASTM-36
17	6	4" X 4" X 1/2" L	8'-7" LG	6-C	ASTM 36
18	5		5'-6" LG	13-B	ASTM 36
19	2		5'-11 1/2" LG	10-B	ASTM-36
20	2	12" X 20lb C	5'-3 1/2" LG	10-B	ASTM-36
21	2		8'-3 1/2" LG	10-B	ASTM-36
22	2	8" X 13lb C	5'-3 1/2" LG	10-B	ASTM-36
23	2		8'-3 1/2" LG	10-B	ASTM-36
24	2	6" X 12.5lb C	6'-5" LG	10 B	ASTM-36
25	2	PIPE 16" SCHEDULE 40	9'-0" LG	8-D	ASTM-36
26	4	PLATE 3/4"	16" I.D X 28" O.D.	8-D	ASTM-36
27	4	PLATE 3/8"	12" X 12"	8-D, 9-C	ASTM-36
28	2		6'-5" X 7"	8-D	ASTM 36
29	2		13 7/8" X 12"	11-C, 6-D	ASTM-36
30	2		13 7/8" X 12"	16-C, 6-D	ASTM-36
31	2		13 7/8" X 11 3/4"	13-C, 6 B	ASTM-36
32	2		13 7/8" X 12"	13-C, 6-D	ASTM-36
33		F.B. 2" X 3/8" X 50"	6-C, 3-C	ASTM 36

GENERAL NOTES:

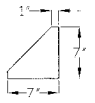
1. THIS DRAWING WAS DEVELOPED TO MODIFY THE JACKSONVILLE DISTRICT DECK BARGE "CN-4" FOR THE REPLACEMENT OF THE BALTIMORE DISTRICT CRANE BARGE "BD-7".
2. ADDITIONAL STRUCTURE TO BE ADDED TO CENTERLINE TRUSS AND TRANSVERSE TRUSSY SUPPORTING CRANE.
2. ALL WELDING TO BE IN ACCORDANCE WITH ABS STANDARDS.
3. REMOVE CRANE FOUNDATION (ABOVE INSERT) FROM CRANE BARGE "BD-7", MODIFY AND INSTALL TO SUIT EXISTING LONGITUDIAL STRUCTURE ON BARGE "CN-4" (AS PER DRAWING).
4. REMOVE AND SCRAP EXISTING SPUD WELLS.
5. PROVIDE NEW SPUD WELLS TO SUIT EXISTING SPUDS FROM "BD-7".
6. ALL DISTURBED PAINT FROM NEW WORK TO BE RECOATED TO THE SATISFACTION OF THE CORP OF ENGINEERS BALTIMORE DISTRICT.
7. ALL HULL PENETRATIONS TO BE AIR TESTED.
8. ALL SNIPES TO BE 1" X 1" UNLESS OTHER WISE NOTED.

MARINE DESIGN CENTER PHILADELPHIA, PA	DEPARTMENT OF THE ARMY MARINE DESIGN CENTER CORPS OF ENGINEERS
LEAD PROJ ENGR:	ROTATED - CH MACH SECT
PROJ ENGR - HULL:	RELEASED - CH HULL SECT
PROJ ENGR - MACH:	SUBMITTED - PROJ MGR
DRAWN BY: R McMullen	RECOMMENDED - CH DES BR
DATE: JUNE 5, 2003	APPROVED - DIRECTOR
	BALTIMORE DISTRICT "CRANE BARGE" 80'x 29'x 7'-0"
	US Army Corps of Engineers STRUCTURAL MODS
	SIZE D | ASSY/CT NO. 2616 | DWG NO. 668-E300-01 | REV
	SCALE 1/4" = 1'-0" SHEET 1 OF 2

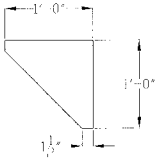
REVISIONS			
REV	DESCRIPTION	DATE	APPROVED



DETAIL 16-D
PIECE (10) 8 EACH
SCALE: - 1½" = 1'-0"



DETAIL 14-B
PIECE (6) 5-EACH
SCALE: - 1½" = 1'-0"



DETAIL 13-D
PIECE (5) 5 EACH
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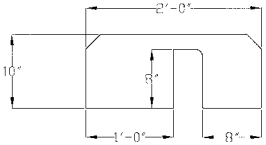

DETAIL 11-B
PIECE (10) 1-EACH
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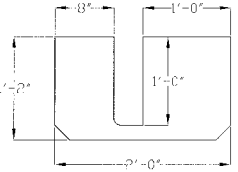
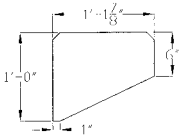
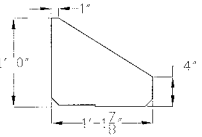


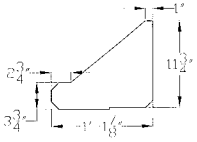
DETAIL 9-B
PIECE (9) 3-EACH
SCALE: - 1½" = 1'-0"



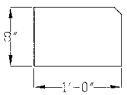
DETAIL 16-C
PIECE (30) 2-EACH
SCALE: - 1½" = 1'-0"



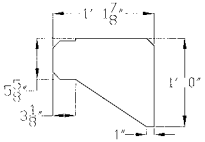
DETAIL 15-C
PIECE (32) 2-EACH
SCALE: - 1½" = 1'-0"



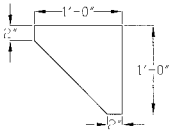
DETAIL 13-C
PIECE (31) 2-EACH
SCALE: - 1½" = 1'-0"



DETAIL 12-C
PIECE (8) 4-EACH
SCALE: - 1½" = 1'-0"

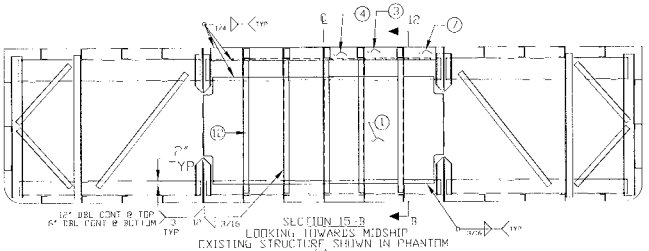


DETAIL 11-C
PIECE (29) 2-EACH
SCALE: - 1½" = 1'-0"

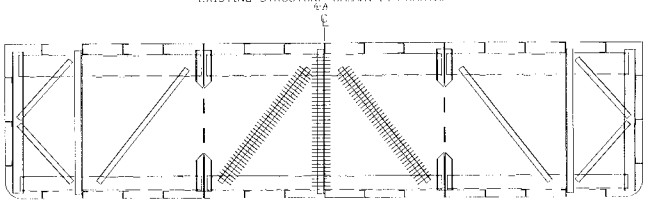


DETAIL 9-C
PIECE (27) 4-EACH
SCALE: - 1½" = 1'-0"

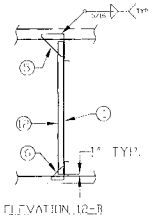
NOTE: LAP FILLER PLATES PC 2, 4, & 7 ONTO EXISTING TRUSS. NOTCH OUT IN WAY OF DECK CHANNELS P/S.



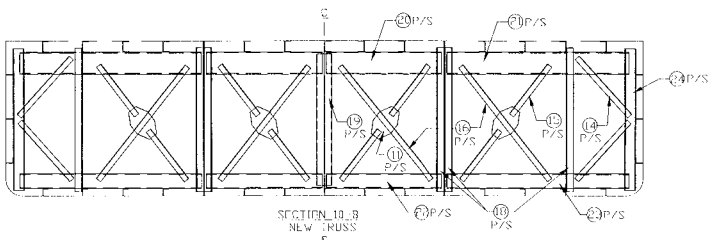
SECTION 15-B
LOOKING TOWARDS MIDSHIP
EXISTING STRUCTURE SHOWN IN PHANTOM



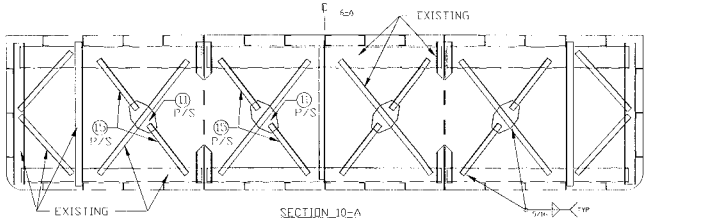
SECTION 15-A
LOOKING TOWARDS MIDSHIP
HASHES REPRESENT REMOVALS
FOR NEW STRUCTURE, SEE SECTION 15-B



ELEVATION 12-B



SECTION 10-B
NEW TRUSS



SECTION 10-A
MODIFIED TRUSS
EXISTING STRUCTURE SHOWN IN PHANTOM

USS	PROJECT NO	DWG NO	REV
D	2616	668-E300-01	-
SCALE	3/8" = 1'-0"	SHEET 2 OF 2	

DEPARTMENT OF THE ARMY
MARINE DESIGN CENTER, CORPS OF ENGINEERS
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3391

REPLY TO ATTENTION OF

MAY 23 2003

CEMDC/2616-0001

MEMORANDUM FOR: Cdr, USAED, Baltimore District, ATTN: CENAB-OP (Greg Barnes)

SUBJECT: CN-4 Hull Survey April, 15 2003 (BD-7 Replacement)

Scope of work:

MDC was tasked with doing a Special Survey of barge CN-4. This survey included an inspection of all of the vessels structure as well as the side, bottom and deck plating. The vessel is adequately framed for its intended use.

History:

The vessel is a deck barge 80'x 29'x 7'. It operated primarily on in-land water of Florida and has been recently docked at Clewiston FL on Lake Okeechobee. The barge has been excessed by Jacksonville District and will be taken by Baltimore District (Washington DC).

Findings:

Visual inspection of hull plating:
The bottom, sides, headlog and sternlog plating is in very good condition. For ultrasonic readings see attachment.

Visual inspection of deck plating:
The deck plating shows minimal wastage however the deck shows obvious heavy use, which has left creases in the plating and depressions between the longitudinal stiffeners (see photo #1). The manholes are leaking and cleaning or replacement of the gaskets will be necessary to make the manholes watertight (see photo #2). Although the spud wells are in good shape they are the wrong size and in the wrong locations for the BD-7 crane (see photo #3).

Visual inspection of internal bulkheads:
The bulkheads are in very good condition.

Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

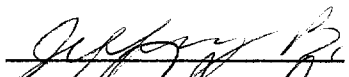
Deck Longitudinals

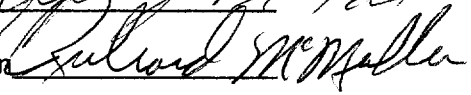
Maximum alowable wastage 25%

72'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

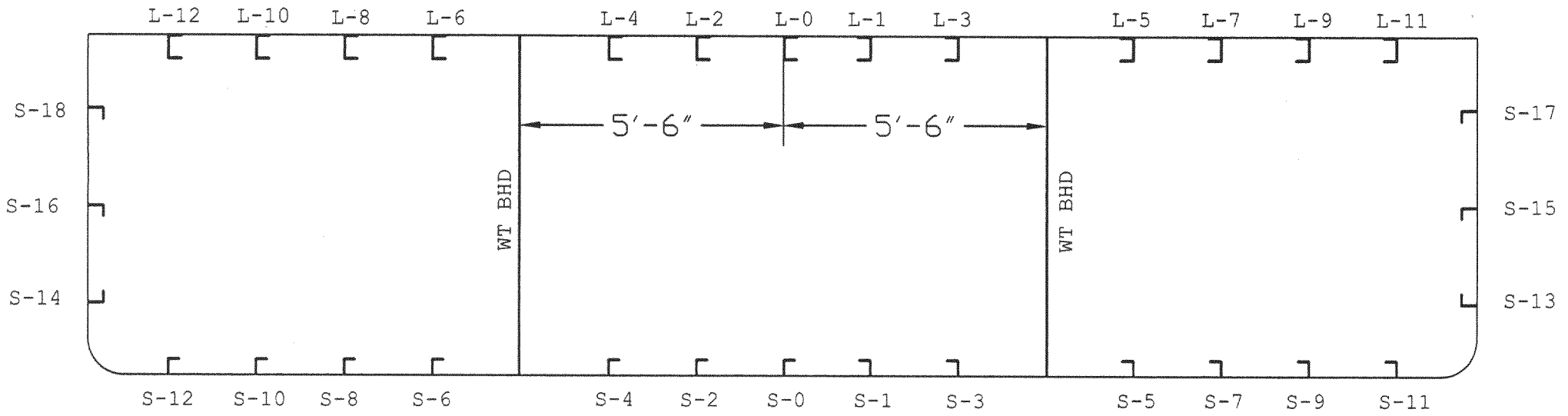
Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Deck Longitudinals

Maximum alowable wastage 25%

56'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

64'-0" AFT OF HEADLOG

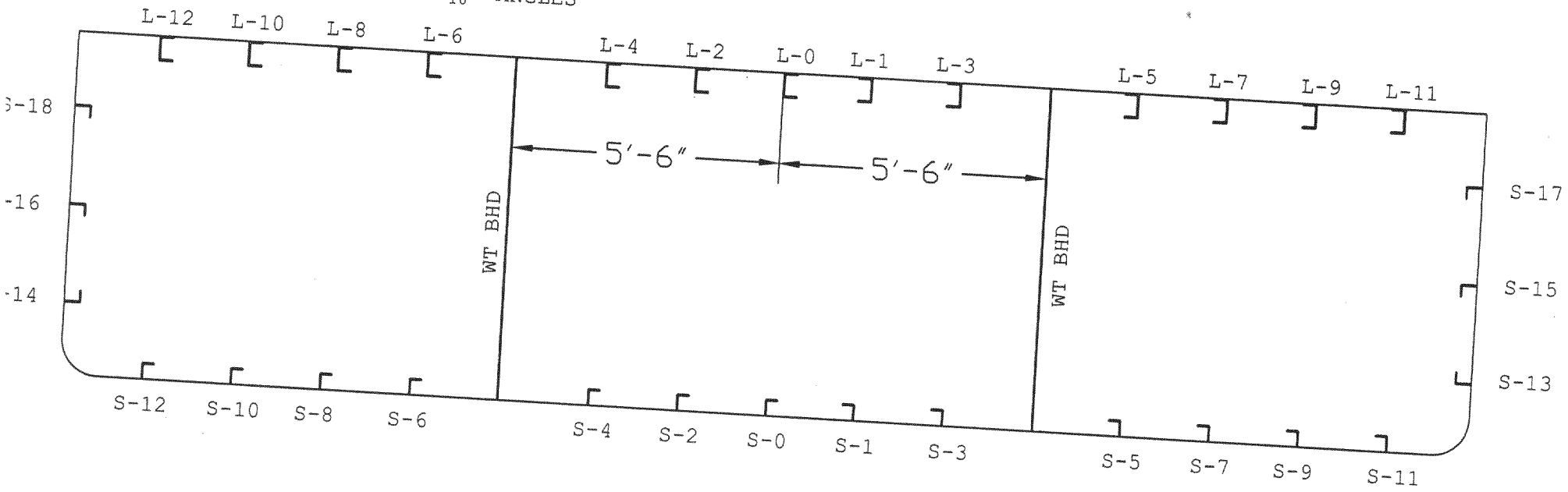
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen

DECK LONGITUDINAL 6x18.0#-C
SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Deck Longitudinals

Maximum alowable wastage 25%

40'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

48'-0" AFT OF HEADLOG

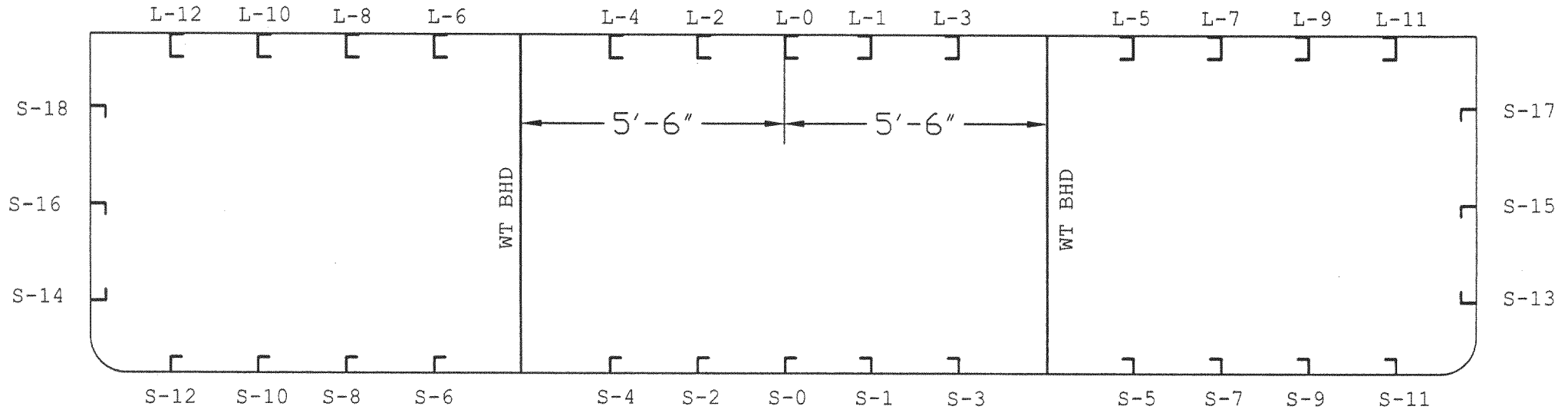
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen

DECK LONGITUDINAL 6x18.0#-C
SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Deck Longitudinals

Maximum alowable wastage 25%

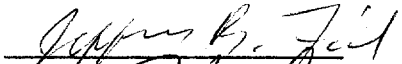
24'-0" AFT OF HEADLOG

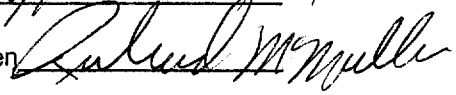
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

32'-0" AFT OF HEADLOG

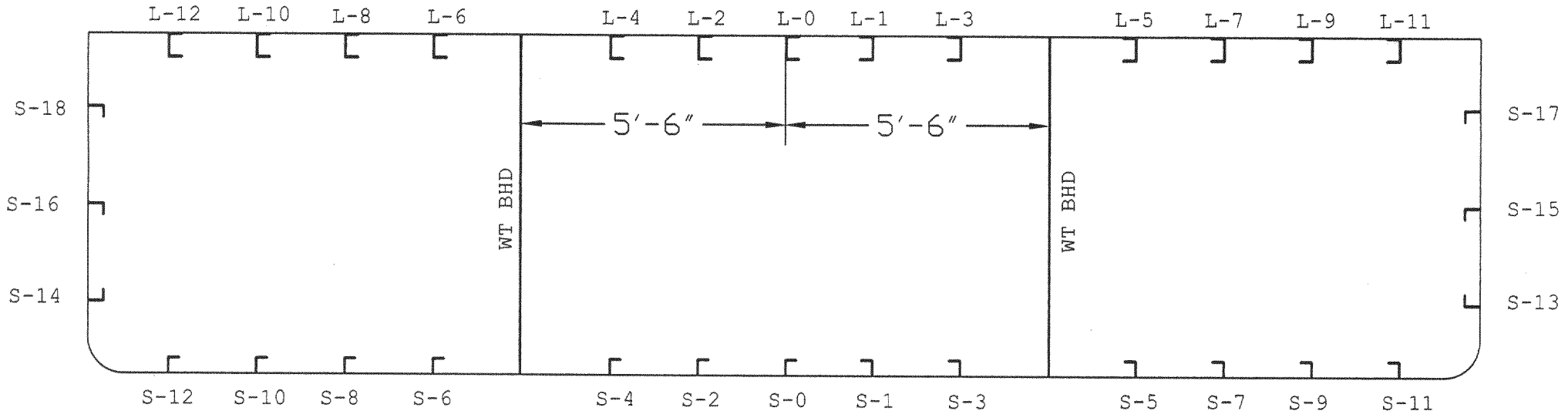
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 

DECK LONGITUDINAL 6x18.0#-C
SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Deck Longitudinals

Maximum alowable wastage 25%

8'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

16'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3790	0.379	0.000	0.00%
1	0.3790	0.379	0.000	0.00%
2	0.3790	0.379	0.000	0.00%
3	0.3790	0.379	0.000	0.00%
4	0.3790	0.379	0.000	0.00%
5	0.3790	0.379	0.000	0.00%
6	0.3790	0.379	0.000	0.00%
7	0.3790	0.379	0.000	0.00%
8	0.3790	0.379	0.000	0.00%
9	0.3790	0.379	0.000	0.00%
10	0.3790	0.379	0.000	0.00%
11	0.3790	0.379	0.000	0.00%
12	0.3790	0.379	0.000	0.00%

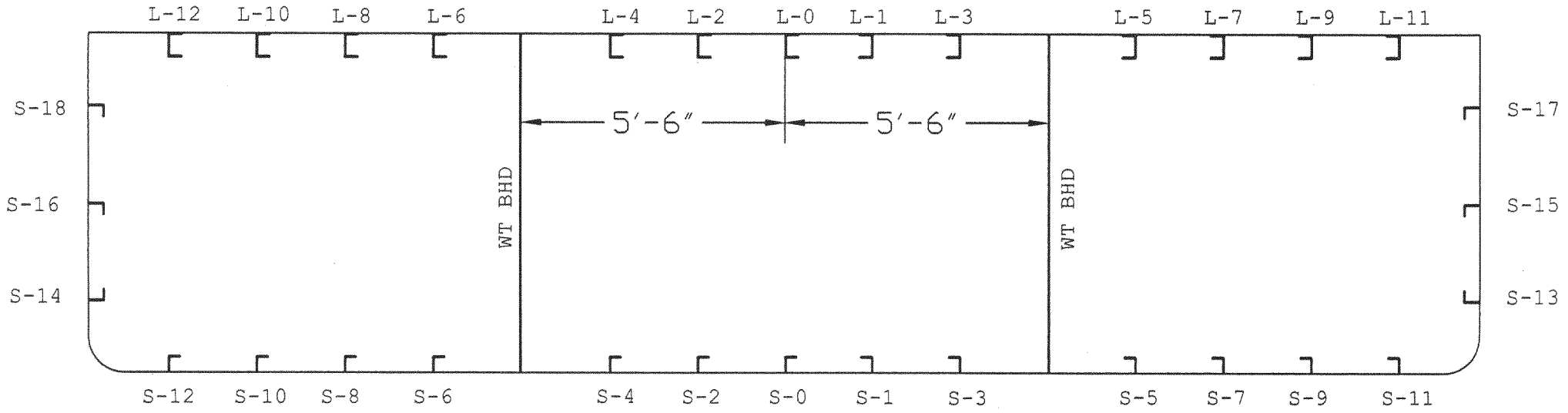
Surveyor Signature:

Jeffrey Fail Jeffrey B. Fail

Richard Mcmullen Richard McMuller

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

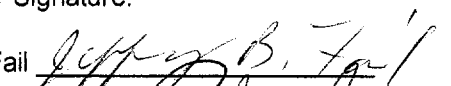
Shell stringers

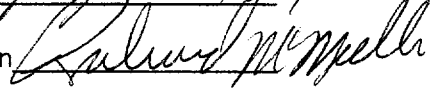
Maximum alowable wastage 25%

72'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.283	0.030	9.44%
1	0.3125	0.276	0.037	11.68%
2	0.3125	0.278	0.035	11.04%
3	0.3125	0.283	0.030	9.44%
4	0.3125	0.286	0.027	8.48%
5	0.3125	0.285	0.028	8.80%
6	0.3125	0.290	0.023	7.20%
7	0.3125	0.296	0.017	5.28%
8	0.3125	0.290	0.023	7.20%
9	0.3125	0.296	0.017	5.28%
10	0.3125	0.298	0.015	4.64%
11	0.3125	0.300	0.013	4.00%
12	0.3125	0.299	0.014	4.32%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

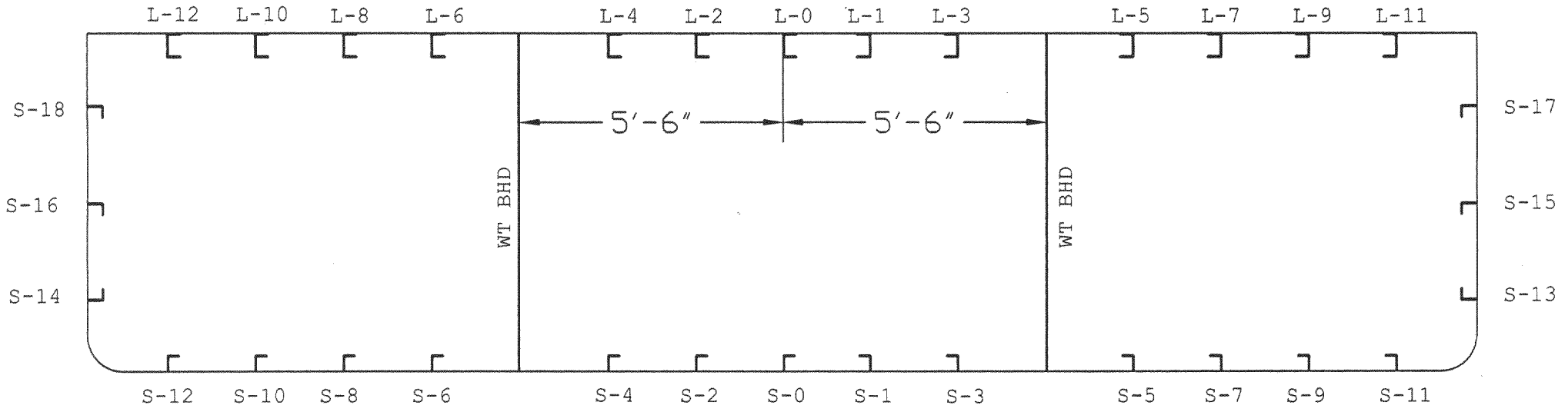
Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Shell stringers

Maximum alowable wastage 25%

56'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.289	0.024	7.52%
1	0.3125	0.285	0.028	8.80%
2	0.3125	0.286	0.027	8.48%
3	0.3125	0.289	0.024	7.52%
4	0.3125	0.294	0.019	5.92%
5	0.3125	0.299	0.014	4.32%
6	0.3125	0.296	0.017	5.28%
7	0.3125	0.298	0.015	4.64%
8	0.3125	0.300	0.013	4.00%
9	0.3125	0.295	0.018	5.60%
10	0.3125	0.295	0.018	5.60%
11	0.3125	0.296	0.017	5.28%
12	0.3125	0.300	0.013	4.00%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

64'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.282	0.031	9.76%
1	0.3125	0.283	0.030	9.44%
2	0.3125	0.286	0.027	8.48%
3	0.3125	0.287	0.026	8.16%
4	0.3125	0.282	0.031	9.76%
5	0.3125	0.293	0.020	6.24%
6	0.3125	0.291	0.022	6.88%
7	0.3125	0.290	0.023	7.20%
8	0.3125	0.304	0.009	2.72%
9	0.3125	0.306	0.007	2.08%
10	0.3125	0.299	0.014	4.32%
11	0.3125	0.300	0.013	4.00%
12	0.3125	0.313	0.000	0.00%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

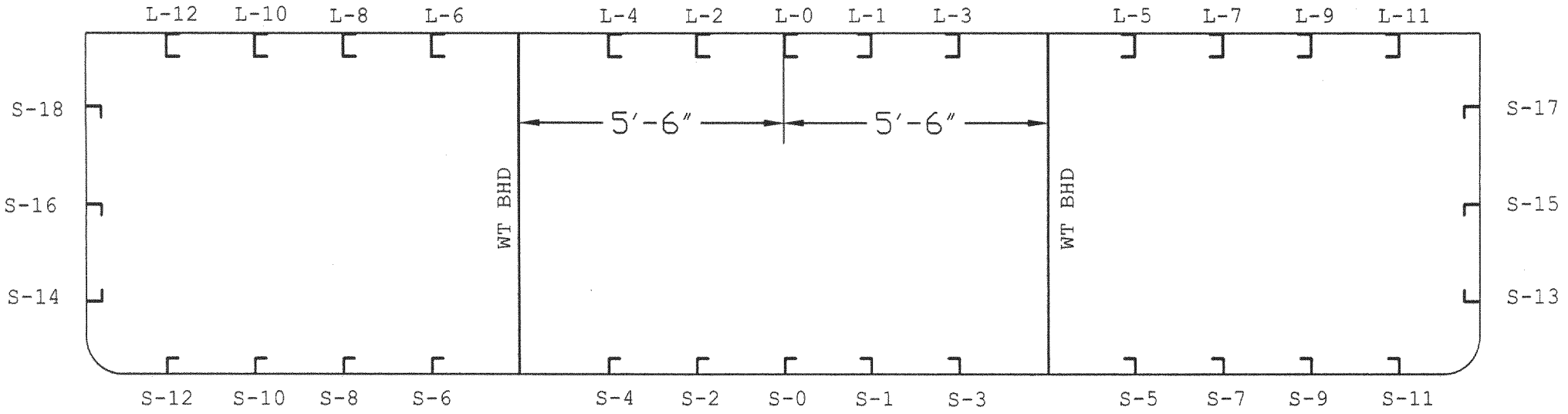
Surveyor Signature:

Jeffrey Fail

Richard Mcmullen

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Shell stringers

Maximum alowable wastage 25%

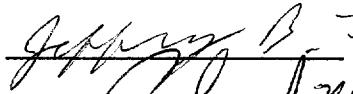
40'-0" AFT OF HEADLOG

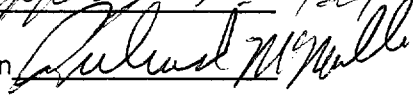
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.298	0.015	4.64%
1	0.3125	0.299	0.014	4.32%
2	0.3125	0.295	0.018	5.60%
3	0.3125	0.297	0.016	4.96%
4	0.3125	0.298	0.015	4.64%
5	0.3125	0.297	0.016	4.96%
6	0.3125	0.299	0.014	4.32%
7	0.3125	0.305	0.008	2.40%
8	0.3125	0.301	0.012	3.68%
9	0.3125	0.300	0.013	4.00%
10	0.3125	0.305	0.008	2.40%
11	0.3125	0.299	0.014	4.32%
12	0.3125	0.295	0.018	5.60%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

48'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.295	0.018	5.60%
1	0.3125	0.298	0.015	4.64%
2	0.3125	0.293	0.020	6.24%
3	0.3125	0.296	0.017	5.28%
4	0.3125	0.295	0.018	5.60%
5	0.3125	0.295	0.018	5.60%
6	0.3125	0.297	0.016	4.96%
7	0.3125	0.301	0.012	3.68%
8	0.3125	0.299	0.014	4.32%
9	0.3125	0.306	0.007	2.08%
10	0.3125	0.304	0.009	2.72%
11	0.3125	0.304	0.009	2.72%
12	0.3125	0.313	0.000	0.00%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

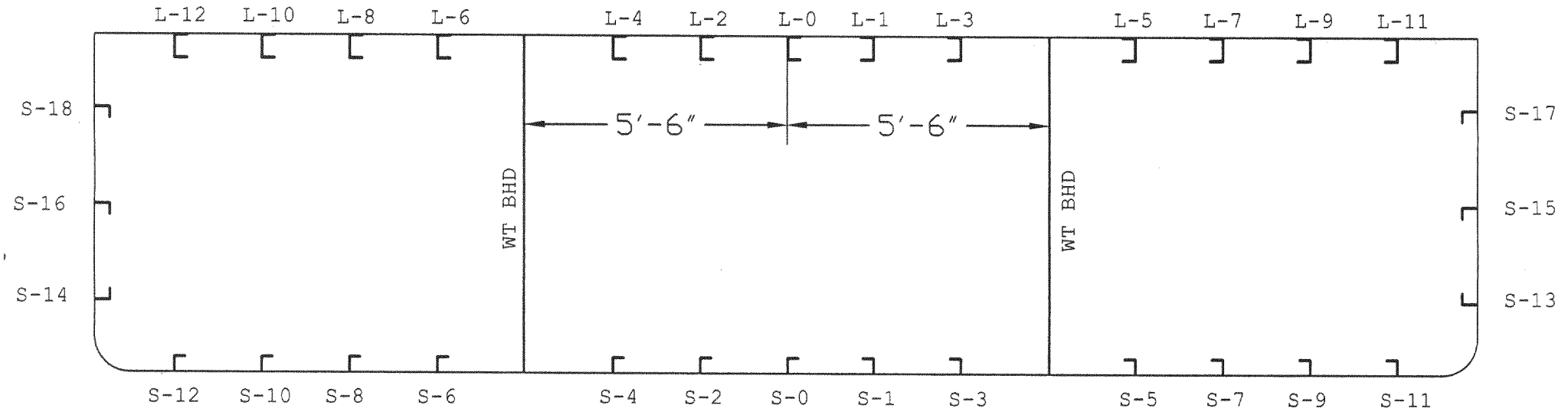
Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Shell stringers

Maximum alowable wastage 25%

24'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.305	0.008	2.40%
1	0.3125	0.310	0.003	0.80%
2	0.3125	0.309	0.004	1.12%
3	0.3125	0.299	0.014	4.32%
4	0.3125	0.305	0.008	2.40%
5	0.3125	0.301	0.012	3.68%
6	0.3125	0.301	0.012	3.68%
7	0.3125	0.301	0.012	3.68%
8	0.3125	0.306	0.007	2.08%
9	0.3125	0.305	0.008	2.40%
10	0.3125	0.301	0.012	3.68%
11	0.3125	0.300	0.013	4.00%
12	0.3125	0.310	0.003	0.80%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

32'-0" AFT OF HEADLOG

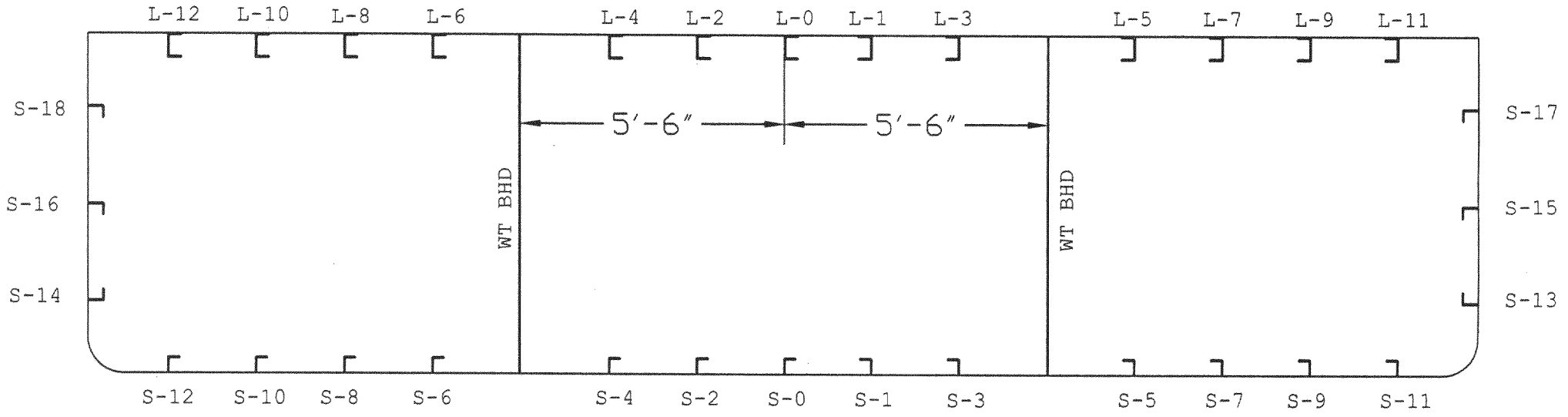
Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.298	0.015	4.64%
1	0.3125	0.304	0.009	2.72%
2	0.3125	0.306	0.007	2.08%
3	0.3125	0.298	0.015	4.64%
4	0.3125	0.298	0.015	4.64%
5	0.3125	0.298	0.015	4.64%
6	0.3125	0.299	0.014	4.32%
7	0.3125	0.300	0.013	4.00%
8	0.3125	0.306	0.007	2.08%
9	0.3125	0.301	0.012	3.68%
10	0.3125	0.300	0.013	4.00%
11	0.3125	0.300	0.013	4.00%
12	0.3125	0.301	0.012	3.68%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen

DECK LONGITUDINAL 6x18.0#-C
SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES



Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Shell stringers

Maximum alowable wastage 25%

8'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.306	0.007	2.08%
1	0.3125	0.303	0.010	3.04%
2	0.3125	0.303	0.010	3.04%
3	0.3125	0.306	0.007	2.08%
4	0.3125	0.310	0.003	0.80%
5	0.3125	0.305	0.008	2.40%
6	0.3125	0.305	0.008	2.40%
7	0.3125	0.309	0.004	1.12%
8	0.3125	0.307	0.006	1.76%
9	0.3125	0.304	0.009	2.72%
10	0.3125	0.304	0.009	2.72%
11	0.3125	0.303	0.010	3.04%
12	0.3125	0.310	0.003	0.80%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

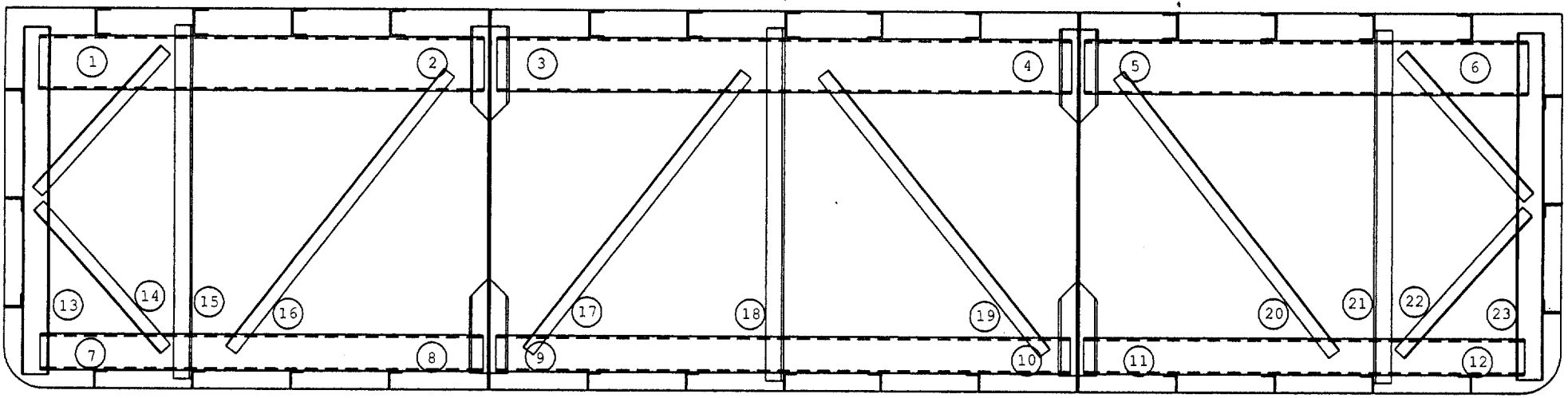
16'-0" AFT OF HEADLOG

Location	Org Thk	Act Thk	Diminution	
			Inches	%
0	0.3125	0.303	0.010	3.04%
1	0.3125	0.304	0.009	2.72%
2	0.3125	0.305	0.008	2.40%
3	0.3125	0.303	0.010	3.04%
4	0.3125	0.309	0.004	1.12%
5	0.3125	0.306	0.007	2.08%
6	0.3125	0.303	0.010	3.04%
7	0.3125	0.303	0.010	3.04%
8	0.3125	0.298	0.015	4.64%
9	0.3125	0.306	0.007	2.08%
10	0.3125	0.300	0.013	4.00%
11	0.3125	0.299	0.014	4.32%
12	0.3125	0.301	0.012	3.68%
13	0.3125	0.313	0.000	0.00%
14	0.3125	0.313	0.000	0.00%
15	0.3125	0.313	0.000	0.00%
16	0.3125	0.313	0.000	0.00%
17	0.3125	0.313	0.000	0.00%
18	0.3125	0.313	0.000	0.00%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Transverse Truss located
Maximum alowable wastage 25%
56'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.277	0.005	1.77%
2	0.2820	0.271	0.011	3.90%
3	0.2820	0.273	0.009	3.19%
4	0.2820	0.277	0.005	1.77%
5	0.2820	0.277	0.005	1.77%
6	0.2820	0.280	0.002	0.71%
7	0.3030	0.278	0.025	8.25%
8	0.3030	0.283	0.020	6.60%
9	0.3030	0.300	0.003	0.99%
10	0.3030	0.300	0.003	0.99%
11	0.3030	0.299	0.004	1.32%
12	0.3030	0.295	0.008	2.64%
13	0.3125	0.279	0.034	10.72%
14	0.3125	0.281	0.032	10.08%
15	0.3125	0.285	0.028	8.80%
16	0.3125	0.287	0.026	8.16%
17	0.3125	0.290	0.023	7.20%
18	0.3125	0.286	0.027	8.48%
19	0.3125	0.288	0.025	7.84%
20	0.3125	0.293	0.020	6.24%
21	0.3125	0.291	0.022	6.88%
22	0.3125	0.286	0.027	8.48%
23	0.3140	0.288	0.026	8.28%

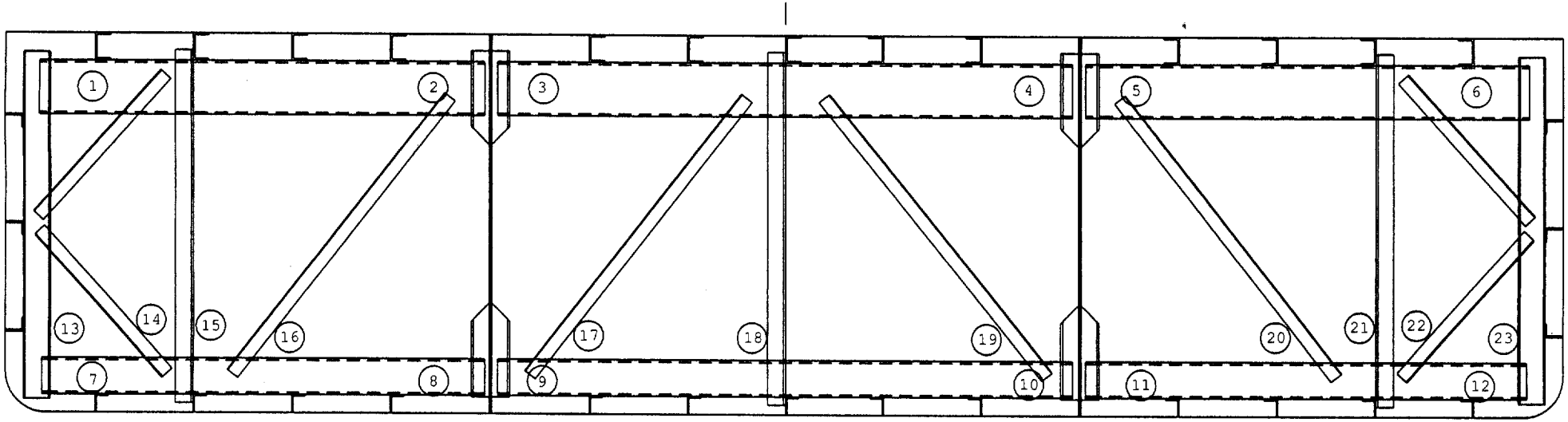
64'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.278	0.004	1.42%
2	0.2820	0.266	0.016	5.67%
3	0.2820	0.272	0.010	3.55%
4	0.2820	0.280	0.002	0.71%
5	0.2820	0.278	0.004	1.42%
6	0.2820	0.281	0.001	0.35%
7	0.3030	0.276	0.027	8.91%
8	0.3030	0.279	0.024	7.92%
9	0.3030	0.288	0.015	4.95%
10	0.3030	0.288	0.015	4.95%
11	0.3030	0.286	0.017	5.61%
12	0.3030	0.283	0.020	6.60%
13	0.3125	0.285	0.028	8.80%
14	0.3125	0.288	0.025	7.84%
15	0.3125	0.290	0.023	7.20%
16	0.3125	0.289	0.024	7.52%
17	0.3125	0.293	0.020	6.24%
18	0.3125	0.298	0.015	4.64%
19	0.3125	0.295	0.018	5.60%
20	0.3125	0.299	0.014	4.32%
21	0.3125	0.295	0.018	5.60%
22	0.3125	0.293	0.020	6.24%
23	0.3140	0.301	0.013	4.14%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Transverse Truss located
Maximum alowable wastage 25%

32'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.273	0.009	3.19%
2	0.2820	0.269	0.013	4.61%
3	0.2820	0.268	0.014	4.96%
4	0.2820	0.275	0.007	2.48%
5	0.2820	0.277	0.005	1.77%
6	0.2820	0.278	0.004	1.42%
7	0.3030	0.284	0.019	6.27%
8	0.3030	0.286	0.017	5.61%
9	0.3030	0.302	0.001	0.33%
10	0.3030	0.287	0.016	5.28%
11	0.3030	0.302	0.001	0.33%
12	0.3030	0.285	0.018	5.94%
13	0.3125	0.288	0.025	7.84%
14	0.3125	0.278	0.035	11.04%
15	0.3125	0.288	0.025	7.84%
16	0.3125	0.295	0.018	5.60%
17	0.3125	0.284	0.029	9.12%
18	0.3125	0.288	0.025	7.84%
19	0.3125	0.294	0.019	5.92%
20	0.3125	0.295	0.018	5.60%
21	0.3125	0.290	0.023	7.20%
22	0.3125	0.286	0.027	8.48%
23	0.3140	0.283	0.031	9.87%

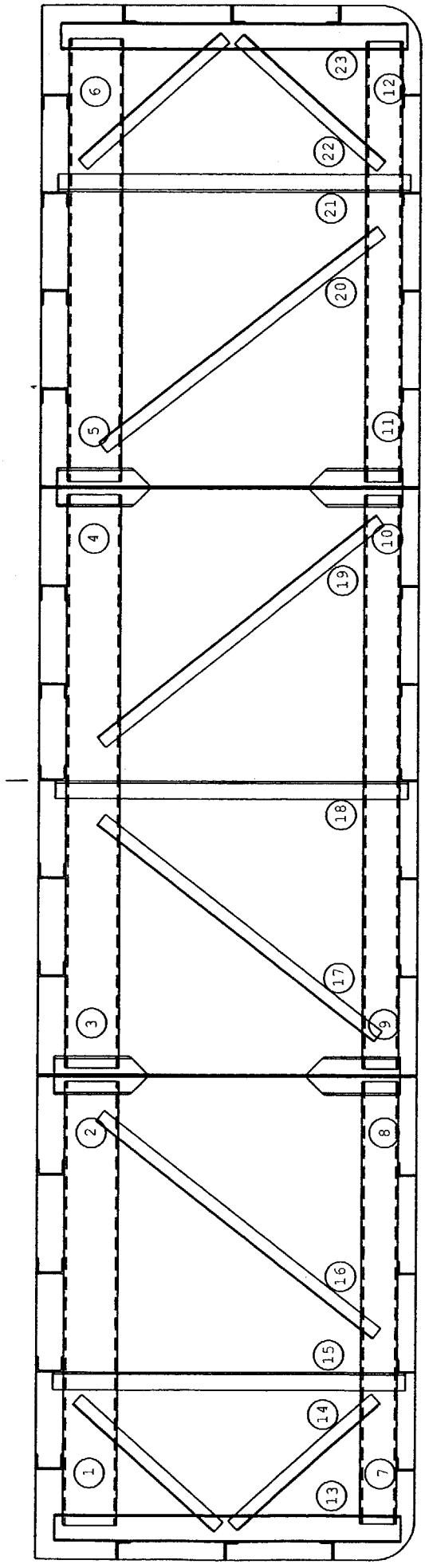
48'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.277	0.005	1.77%
2	0.2820	0.268	0.014	4.96%
3	0.2820	0.270	0.012	4.26%
4	0.2820	0.266	0.016	5.67%
5	0.2820	0.274	0.008	2.84%
6	0.2820	0.278	0.004	1.42%
7	0.3030	0.290	0.013	4.29%
8	0.3030	0.286	0.017	5.61%
9	0.3030	0.300	0.003	0.99%
10	0.3030	0.296	0.007	2.31%
11	0.3030	0.289	0.014	4.62%
12	0.3030	0.293	0.010	3.30%
13	0.3125	0.299	0.014	4.32%
14	0.3125	0.295	0.018	5.60%
15	0.3125	0.286	0.027	8.48%
16	0.3125	0.295	0.018	5.60%
17	0.3125	0.302	0.011	3.36%
18	0.3125	0.298	0.015	4.64%
19	0.3125	0.294	0.019	5.92%
20	0.3125	0.294	0.019	5.92%
21	0.3125	0.294	0.019	5.92%
22	0.3125	0.290	0.023	7.20%
23	0.3140	0.288	0.026	8.28%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Description: 80'x 29'x 7'

Date: April 15, 2003

Transverse Truss

Maximum alowable wastage 25%

16'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.263	0.019	6.74%
2	0.2820	0.267	0.015	5.32%
3	0.2820	0.267	0.015	5.32%
4	0.2820	0.269	0.013	4.61%
5	0.2820	0.267	0.015	5.32%
6	0.2820	0.265	0.017	6.03%
7	0.3030	0.288	0.015	4.95%
8	0.3030	0.301	0.002	0.66%
9	0.3030	0.251	0.052	17.16%
10	0.3030	0.281	0.022	7.26%
11	0.3030	0.300	0.003	0.99%
12	0.3030	0.286	0.017	5.61%
13	0.3140	0.304	0.010	3.18%
14	0.3125	0.290	0.023	7.20%
15	0.3125	0.307	0.006	1.76%
16	0.3125	0.311	0.002	0.48%
17	0.3125	0.299	0.014	4.32%
18	0.3125	0.297	0.016	4.96%
19	0.3125	0.285	0.028	8.80%
20	0.3125	0.285	0.028	8.80%
21	0.3125	0.288	0.025	7.84%
22	0.3125	0.294	0.019	5.92%
23	0.3140	0.304	0.010	3.18%

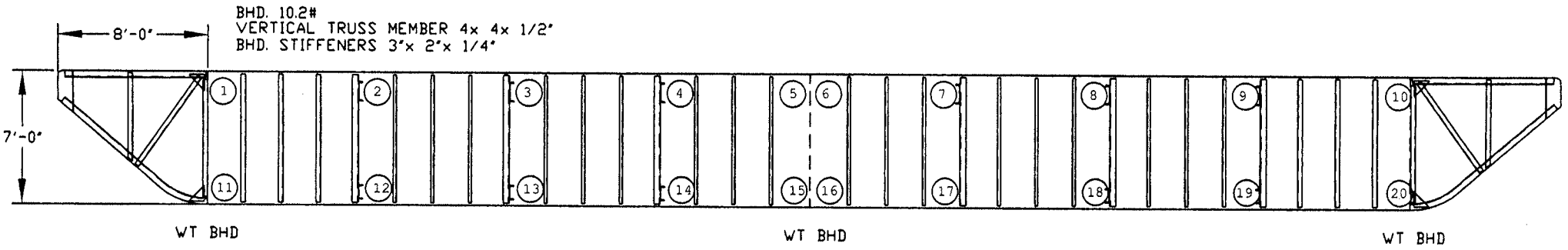
24'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2820	0.271	0.011	3.90%
2	0.2820	0.274	0.008	2.84%
3	0.2820	0.267	0.015	5.32%
4	0.2820	0.268	0.014	4.96%
5	0.2820	0.267	0.015	5.32%
6	0.2820	0.277	0.005	1.77%
7	0.3030	0.284	0.019	6.27%
8	0.3030	0.300	0.003	0.99%
9	0.3030	0.288	0.015	4.95%
10	0.3030	0.284	0.019	6.27%
11	0.3030	0.288	0.015	4.95%
12	0.3030	0.299	0.004	1.32%
13	0.3140	0.298	0.016	5.10%
14	0.3125	0.310	0.003	0.80%
15	0.3125	0.306	0.007	2.08%
16	0.3125	0.284	0.029	9.12%
17	0.3125	0.284	0.029	9.12%
18	0.3125	0.288	0.025	7.84%
19	0.3125	0.294	0.019	5.92%
20	0.3125	0.295	0.018	5.60%
21	0.3125	0.290	0.023	7.20%
22	0.3125	0.286	0.027	8.48%
23	0.3140	0.283	0.031	9.87%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen


BHD. 10.2#
VERTICAL TRUSS MEMBER 4x 4x 1/2"
BHD. STIFFENERS 3"x 2"x 1/4"
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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Longitudinal Bulkhead located 5'-6" port of centerline
Maximum alowable wastage 25%

5'-6" port of centerline

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2500	0.249	0.001	0.40%
2	0.2500	0.242	0.008	3.20%
3	0.2500	0.245	0.005	2.00%
4	0.2500	0.242	0.008	3.20%
5	0.2500	0.245	0.005	2.00%
6	0.2500	0.243	0.007	2.80%
7	0.2500	0.249	0.001	0.40%
8	0.2500	0.241	0.009	3.60%
9	0.2500	0.241	0.009	3.60%
10	0.2500	0.244	0.006	2.40%
11	0.2500	0.247	0.003	1.20%
12	0.2500	0.242	0.008	3.20%
13	0.2500	0.247	0.003	1.20%
14	0.2500	0.245	0.005	2.00%
15	0.2500	0.247	0.003	1.20%
16	0.2500	0.245	0.005	2.00%
17	0.2500	0.241	0.009	3.60%
18	0.2500	0.247	0.003	1.20%
19	0.2500	0.245	0.005	2.00%
20	0.2500	0.248	0.002	0.80%

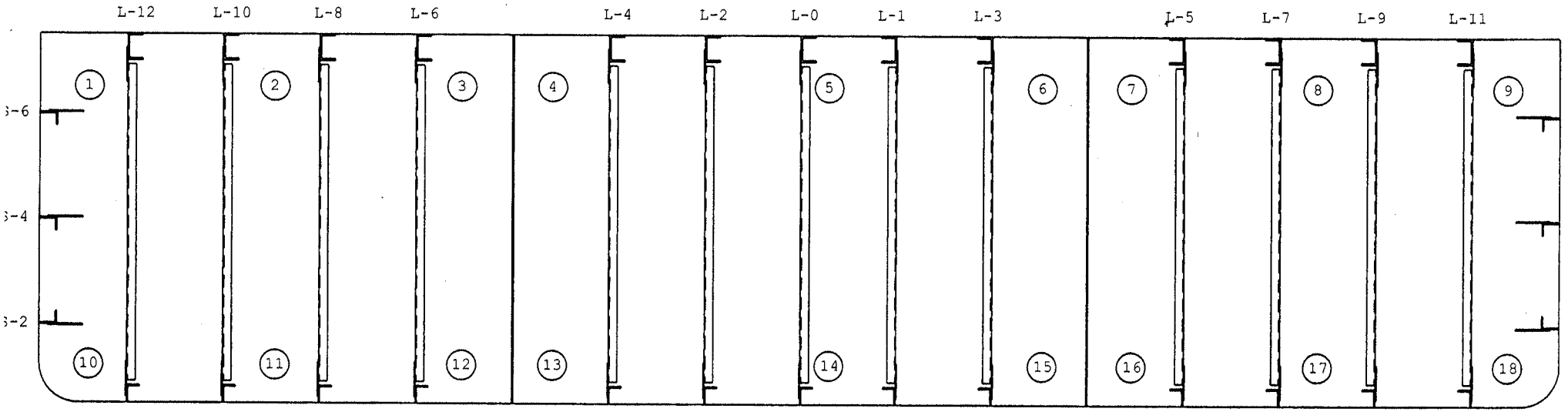
5'-6" stbd of centerline

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2500	0.246	0.004	1.60%
2	0.2500	0.245	0.005	2.00%
3	0.2500	0.248	0.002	0.80%
4	0.2500	0.244	0.006	2.40%
5	0.2500	0.246	0.004	1.60%
6	0.2500	0.246	0.004	1.60%
7	0.2500	0.247	0.003	1.20%
8	0.2500	0.244	0.006	2.40%
9	0.2500	0.250	0.000	0.00%
10	0.2500	0.247	0.003	1.20%
11	0.2500	0.243	0.007	2.80%
12	0.2500	0.243	0.007	2.80%
13	0.2500	0.242	0.008	3.20%
14	0.2500	0.245	0.005	2.00%
15	0.2500	0.239	0.011	4.40%
16	0.2500	0.238	0.012	4.80%
17	0.2500	0.241	0.009	3.60%
18	0.2500	0.241	0.009	3.60%
19	0.2500	0.246	0.004	1.60%
20	0.2500	0.248	0.002	0.80%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen



TRANSVERSE BULKHEAD LOOKIN FORWARD

Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

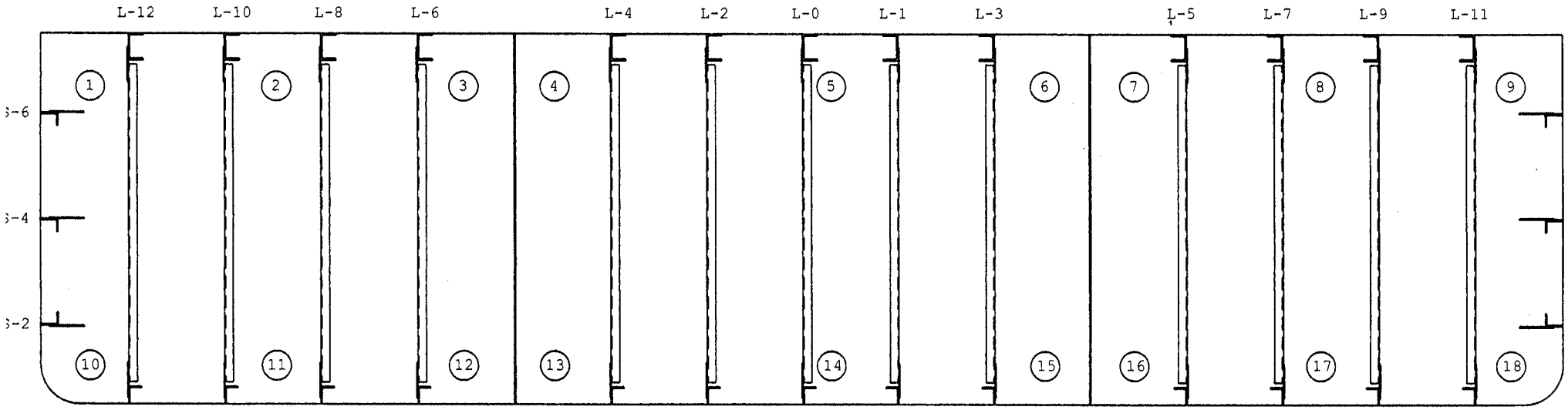
Transverse Bulkhead
Maximum alowable wastage 25%
72'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2500	0.248	0.002	0.80%
2	0.2500	0.246	0.004	1.60%
3	0.2500	0.246	0.004	1.60%
4	0.2500	0.247	0.003	1.20%
5	0.2500	0.248	0.002	0.80%
6	0.2500	0.245	0.005	2.00%
7	0.2500	0.244	0.006	2.40%
8	0.2500	0.247	0.003	1.20%
9	0.2500	0.248	0.002	0.80%
10	0.2500	0.236	0.014	5.60%
11	0.2500	0.234	0.016	6.40%
12	0.2500	0.234	0.016	6.40%
13	0.2500	0.233	0.017	6.80%
14	0.2500	0.238	0.012	4.80%
15	0.2500	0.236	0.014	5.60%
16	0.2500	0.234	0.016	6.40%
17	0.2500	0.234	0.016	6.40%
18	0.2500	0.235	0.015	6.00%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen



TRANSVERSE BULKHEAD LOOKIN FORWARD

Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Transverse Bulkheads

Maximum alowable wastage 25%

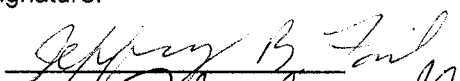
8'-0" aft of the headlog

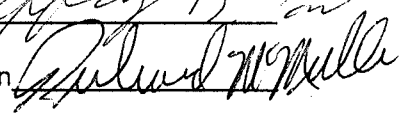
Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2500	0.249	0.001	0.40%
2	0.2500	0.250	0.000	0.00%
3	0.2500	0.249	0.001	0.40%
4	0.2500	0.249	0.001	0.40%
5	0.2500	0.248	0.002	0.80%
6	0.2500	0.250	0.000	0.00%
7	0.2500	0.249	0.001	0.40%
8	0.2500	0.250	0.000	0.00%
9	0.2500	0.248	0.002	0.80%
10	0.2500	0.235	0.015	6.00%
11	0.2500	0.238	0.012	4.80%
12	0.2500	0.241	0.009	3.60%
13	0.2500	0.240	0.010	4.00%
14	0.2500	0.236	0.014	5.60%
15	0.2500	0.229	0.021	8.40%
16	0.2500	0.236	0.014	5.60%
17	0.2500	0.238	0.012	4.80%
18	0.2500	0.236	0.014	5.60%

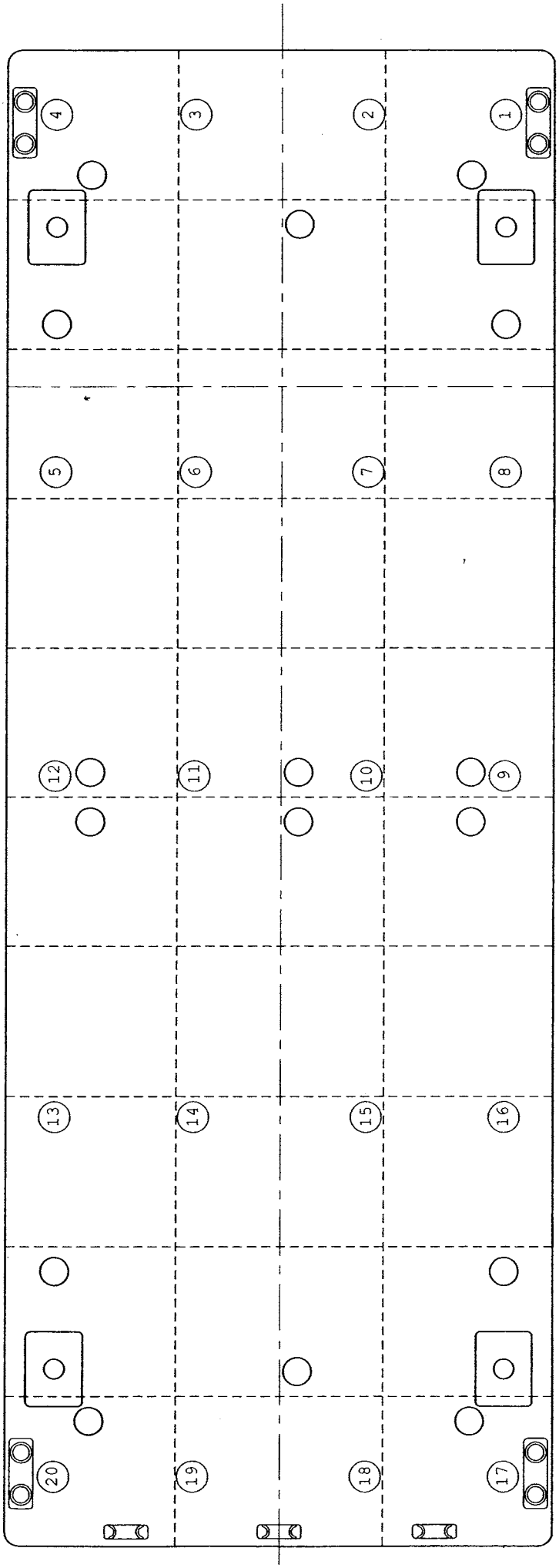
40'-0" aft of the headlog

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.2500	0.250	0.000	0.00%
2	0.2500	0.248	0.002	0.80%
3	0.2500	0.249	0.001	0.40%
4	0.2500	0.248	0.002	0.80%
5	0.2500	0.246	0.004	1.60%
6	0.2500	0.248	0.002	0.80%
7	0.2500	0.245	0.005	2.00%
8	0.2500	0.247	0.003	1.20%
9	0.2500	0.245	0.005	2.00%
10	0.2500	0.236	0.014	5.60%
11	0.2500	0.236	0.014	5.60%
12	0.2500	0.235	0.015	6.00%
13	0.2500	0.234	0.016	6.40%
14	0.2500	0.235	0.015	6.00%
15	0.2500	0.236	0.014	5.60%
16	0.2500	0.239	0.011	4.40%
17	0.2500	0.237	0.013	5.20%
18	0.2500	0.238	0.012	4.80%

Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

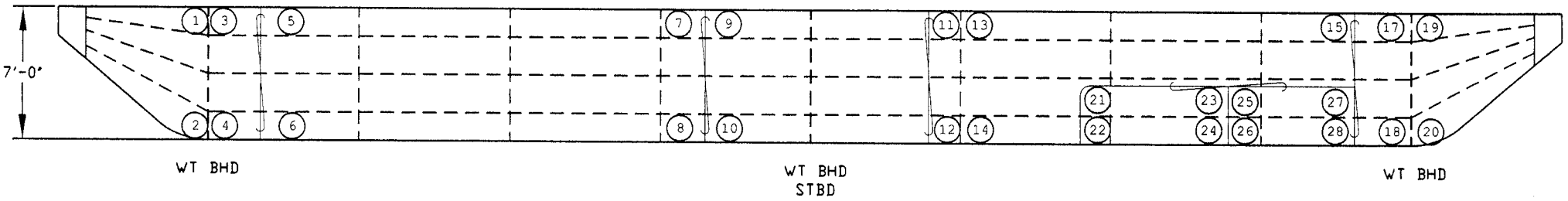
Deck plating
Maximum alowable wastage 25%

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.5000	0.470	0.030	6.00%
2	0.5000	0.482	0.018	3.60%
3	0.5000	0.479	0.021	4.20%
4	0.5000	0.482	0.018	3.60%
5	0.5000	0.500	0.000	0.00%
6	0.5000	0.438	0.062	12.40%
7	0.5000	0.500	0.000	0.00%
8	0.5000	0.493	0.007	1.40%
9	0.5000	0.496	0.004	0.80%
10	0.5000	0.492	0.008	1.60%
11	0.5000	0.478	0.022	4.40%
12	0.5000	0.495	0.005	1.00%
13	0.5000	0.496	0.004	0.80%
14	0.5000	0.468	0.032	6.40%
15	0.5000	0.460	0.040	8.00%
16	0.5000	0.492	0.008	1.60%
17	0.5000	0.492	0.008	1.60%
18	0.5000	0.493	0.007	1.40%
19	0.5000	0.493	0.007	1.40%
20	0.5000	0.500	0.000	0.00%

Surveyor Signature:

Jeffrey Fail Jeffrey B. Fail

Richard Mcmullen Richard McMullen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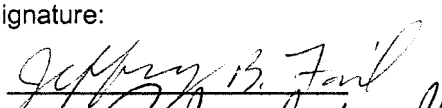
Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

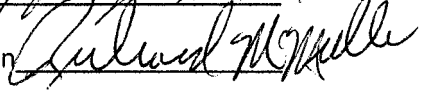
Side shell plating (stbd)

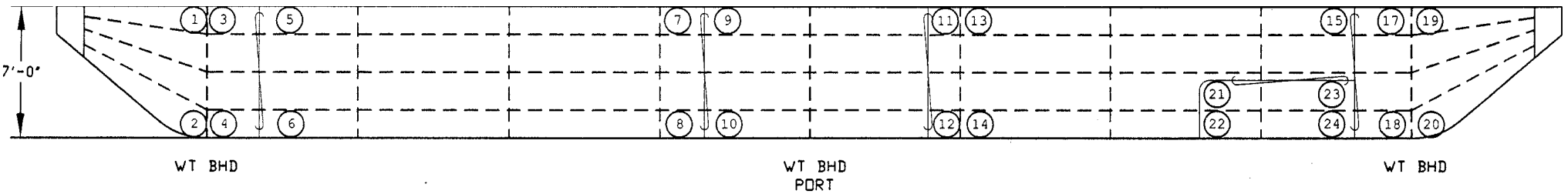
Maximum alowable wastage 25%

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.3125	0.304	0.009	2.72%
2	0.3125	0.302	0.011	3.36%
3	0.3125	0.310	0.003	0.80%
4	0.3125	0.312	0.001	0.16%
5	0.3125	0.278	0.035	11.04%
6	0.3125	0.310	0.003	0.80%
7	0.3125	0.308	0.005	1.44%
8	0.3125	0.304	0.009	2.72%
9	0.3125	0.311	0.002	0.48%
10	0.3125	0.307	0.006	1.76%
11	0.3125	0.304	0.009	2.72%
12	0.3125	0.244	0.069	21.92%
13	0.3125	0.308	0.005	1.44%
14	0.3125	0.244	0.069	21.92%
15	0.3125	0.302	0.011	3.36%
16				
17	0.3125	0.307	0.006	1.76%
18	0.3125	0.275	0.038	12.00%
19	0.3125	0.306	0.007	2.08%
20	0.3125	0.302	0.011	3.36%
21	0.3125	0.312	0.001	0.16%
22	0.3125	0.312	0.001	0.16%
23	0.3125	0.312	0.001	0.16%
24	0.3125	0.312	0.001	0.16%
25	0.3125	0.312	0.001	0.16%

Surveyor Signature:

Jeffrey Fail 

Richard Mcmullen 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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

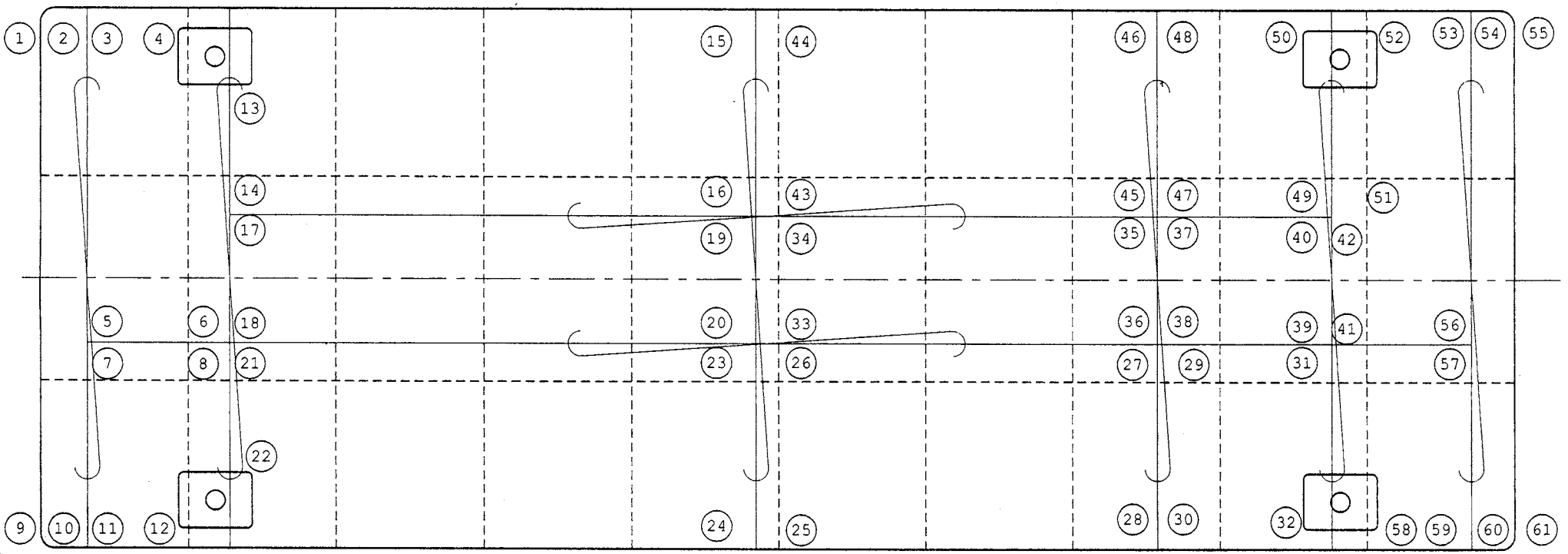
Side shell plating (port)
Maximum alowable wastage 25%

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.3125	0.306	0.007	2.08%
2	0.3125	0.303	0.010	3.04%
3	0.3125	0.310	0.003	0.80%
4	0.3125	0.276	0.037	11.68%
5	0.3125	0.300	0.013	4.00%
6	0.3125	0.289	0.024	7.52%
7	0.3125	0.308	0.005	1.44%
8	0.3125	0.297	0.016	4.96%
9	0.3125	0.311	0.002	0.48%
10	0.3125	0.295	0.018	5.60%
11	0.3125	0.304	0.009	2.72%
12	0.3125	0.296	0.017	5.28%
13	0.3125	0.308	0.005	1.44%
14	0.3125	0.278	0.035	11.04%
15	0.3125	0.306	0.007	2.08%
16	0.3125	0.289	0.024	7.52%
17	0.3125	0.307	0.006	1.76%
18	0.3125	0.274	0.039	12.32%
19	0.3125	0.306	0.007	2.08%
20	0.3125	0.299	0.014	4.32%
21	0.3125	0.310	0.003	0.80%
22	0.3125	0.312	0.001	0.16%
23	0.3125	0.311	0.002	0.48%
24	0.3125	0.310	0.003	0.80%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

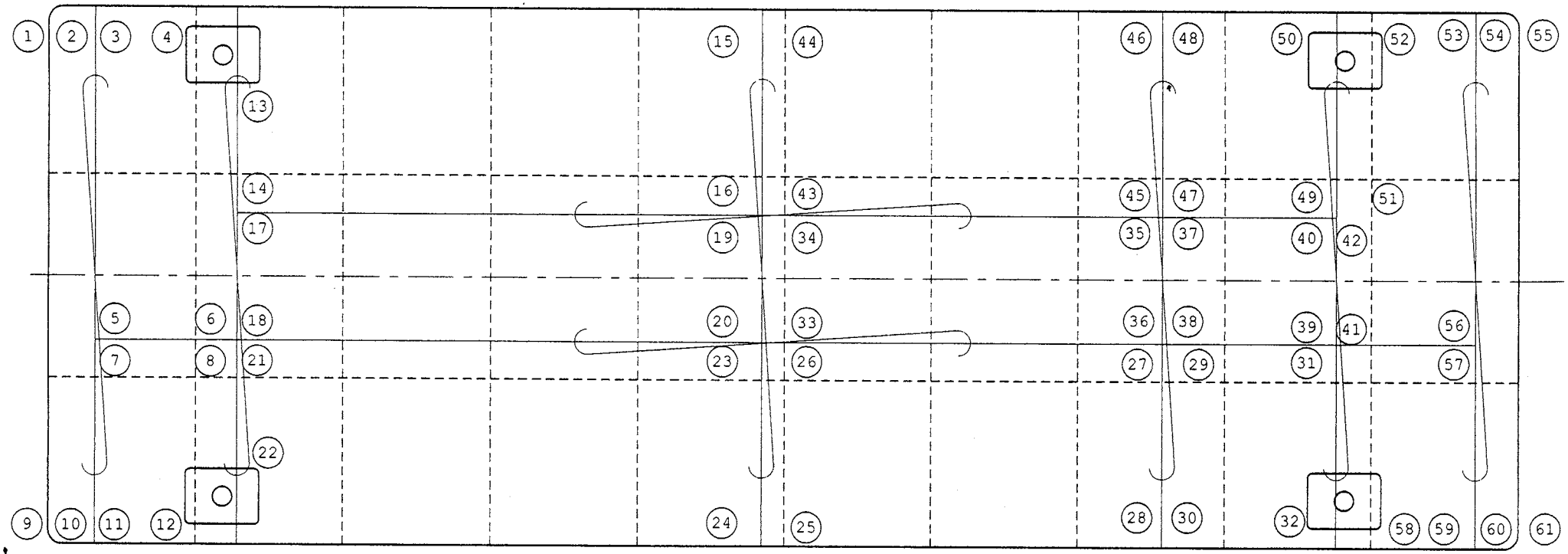
Date: April 15, 2003

51	0.3125	0.310	0.003	0.80%
52	0.3125	0.307	0.006	1.76%
53	0.3125	0.304	0.009	2.72%
54	0.3125	0.305	0.008	2.40%
55	0.3125	0.303	0.010	3.04%
56	0.3125	0.307	0.006	1.76%
57	0.3125	0.303	0.010	3.04%
58	0.3125	0.304	0.009	2.72%
59	0.3125	0.235	0.078	24.80%
60	0.3125	0.305	0.008	2.40%
61	0.3125	0.310	0.003	0.80%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

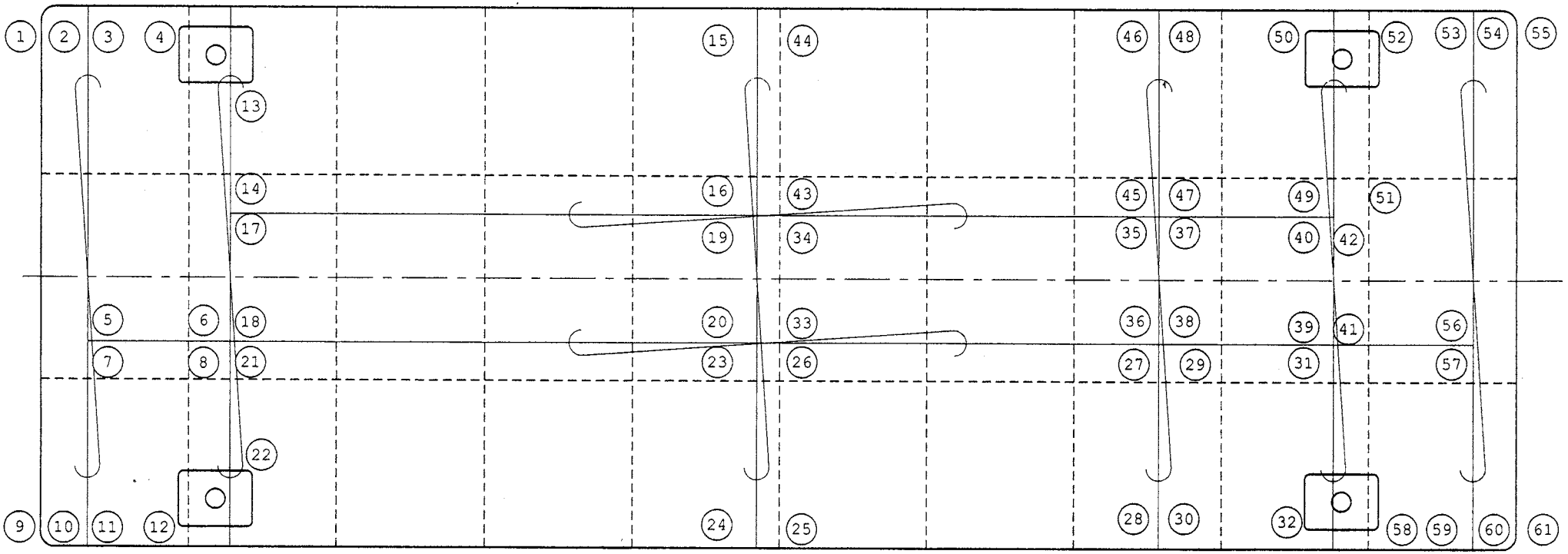
Date: April 15, 2003

26	0.3125	0.302	0.011	3.36%
27	0.3125	0.303	0.010	3.04%
28	0.3125	0.304	0.009	2.72%
29	0.3125	0.304	0.009	2.72%
30	0.3125	0.302	0.011	3.36%
31	0.3125	0.297	0.016	4.96%
32	0.3125	0.301	0.012	3.68%
33	0.3125	0.309	0.004	1.12%
34	0.3125	0.301	0.012	3.68%
35	0.3125	0.303	0.010	3.04%
36	0.3125	0.312	0.001	0.16%
37	0.3125	0.310	0.003	0.80%
38	0.3125	0.312	0.001	0.16%
39	0.3125	0.309	0.004	1.12%
40	0.3125	0.309	0.004	1.12%
41	0.3125	0.312	0.001	0.16%
42	0.3125	0.308	0.005	1.44%
43	0.3125	0.306	0.007	2.08%
44	0.3125	0.309	0.004	1.12%
45	0.3125	0.275	0.038	12.00%
46	0.3125	0.310	0.003	0.80%
47	0.3125	0.305	0.008	2.40%
48	0.3125	0.309	0.004	1.12%
49	0.3125	0.309	0.004	1.12%
50	0.3125	0.310	0.003	0.80%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen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Marine Design Center, Project Number 2616
Project Description: Floating Crane, Barge Replacement
District: Baltimore
Vessel Name: CN-4
Vessel Discription: 80'x 29'x 7'

Date: April 15, 2003

Bottom plating
Maximum alowable wastage 25%

Location	Org Thk	Act Thk	Diminution	
			Inches	%
1	0.3125	0.307	0.006	1.76%
2	0.3125	0.307	0.006	1.76%
3	0.3125	0.312	0.001	0.16%
4	0.3125	0.312	0.001	0.16%
5	0.3125	0.312	0.001	0.16%
6	0.3125	0.300	0.013	4.00%
7	0.3125	0.293	0.020	6.24%
8	0.3125	0.312	0.001	0.16%
9	0.3125	0.306	0.007	2.08%
10	0.3125	0.278	0.035	11.04%
11	0.3125	0.299	0.014	4.32%
12	0.3125	0.271	0.042	13.28%
13	0.3125	0.298	0.015	4.64%
14	0.3125	0.278	0.035	11.04%
15	0.3125	0.292	0.021	6.56%
16	0.3125	0.301	0.012	3.68%
17	0.3125	0.274	0.039	12.32%
18	0.3125	0.305	0.008	2.40%
19	0.3125	0.303	0.010	3.04%
20	0.3125	0.281	0.032	10.08%
21	0.3125	0.307	0.006	1.76%
22	0.3125	0.302	0.011	3.36%
23	0.3125	0.309	0.004	1.12%
24	0.3125	0.300	0.013	4.00%
25	0.3125	0.310	0.003	0.80%

Surveyor Signature:

Jeffrey Fail

Richard Mcmullen

CEMDC/2616-0001
SUBJECT: CN-4 Hull Survey April, 15 2003 (BD-7 Replacement)

Visual inspection of interior structure:
There is minimal wastage and or damage to the interior structure of the barge. There are some broken welds where the trusses attach to the deck longitudinals. These will have to be repaired.

Visual inspection of coating systems:
Hull exterior:
The coating system is in generally good condition
Deck Exterior:
The coating system on the deck should be replaced with a standard marine epoxy coating system w/non-skid additive.
Interior:
The coating system in the rakes should be replaced. There are several areas throughout the barge were the coating system has failed and should be repaired (see photo #4).

Ultrasonic inspection:
The ultrasonic inspection verifies that the hull, deck and internal structure is in very good condition. See attachment A.

Conclusion:
The vessel is in very good condition and with some modifications can be adapted to meet the mission of BD-7.

Required and Recommended work:

Modify existing crane foundation (Required).
Analyze existing crane support structure (required).
Design new crane support structure (required).
Relocate one manhole IWO crane foundation (required).
Install new spud wells (required).
Clean manhole gaskets (required).
Blast, paint and non-skid the deck (recommended).
Blast and paint the rake ends (recommended).
Remove existing obsolete spud wells (recommended).

Jeffrey B. Fail
Engineering Technician

Richard P. Mc Mullen
Engineering Technician

DECK LONGITUDINAL 6x18.0#-C

SHELL STRINGERS 4x 3x $\frac{5}{16}$" ANGLES